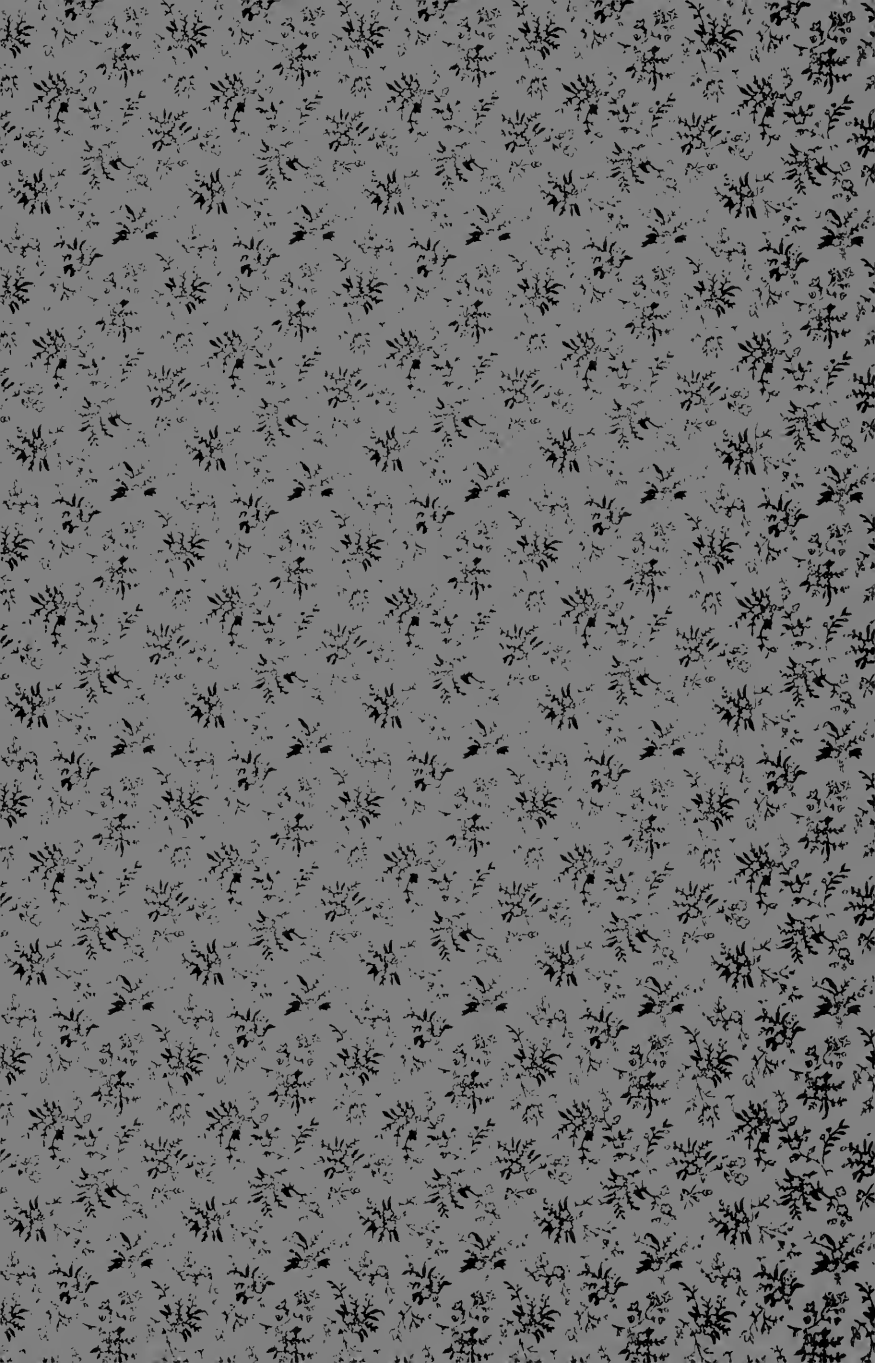


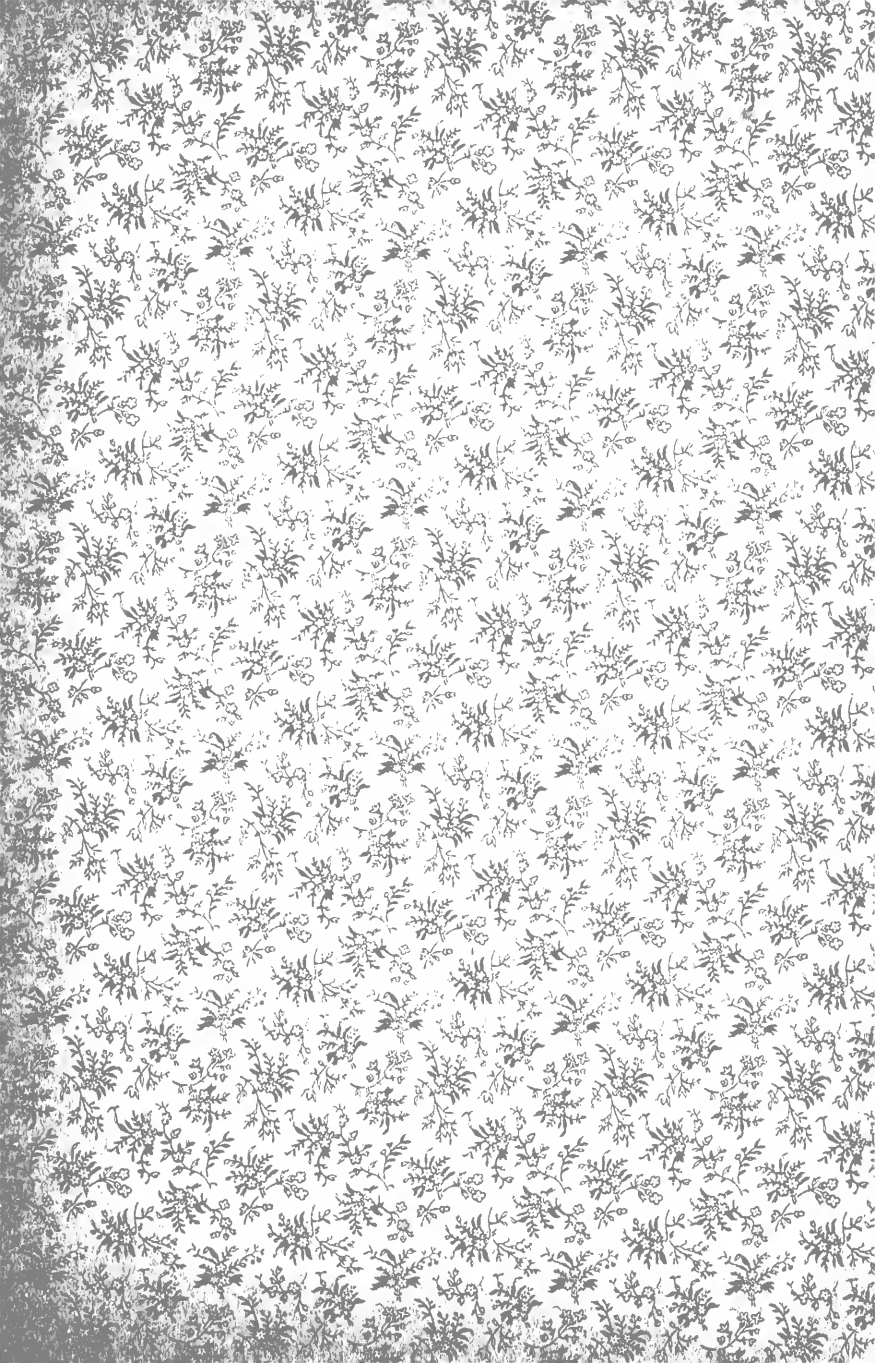


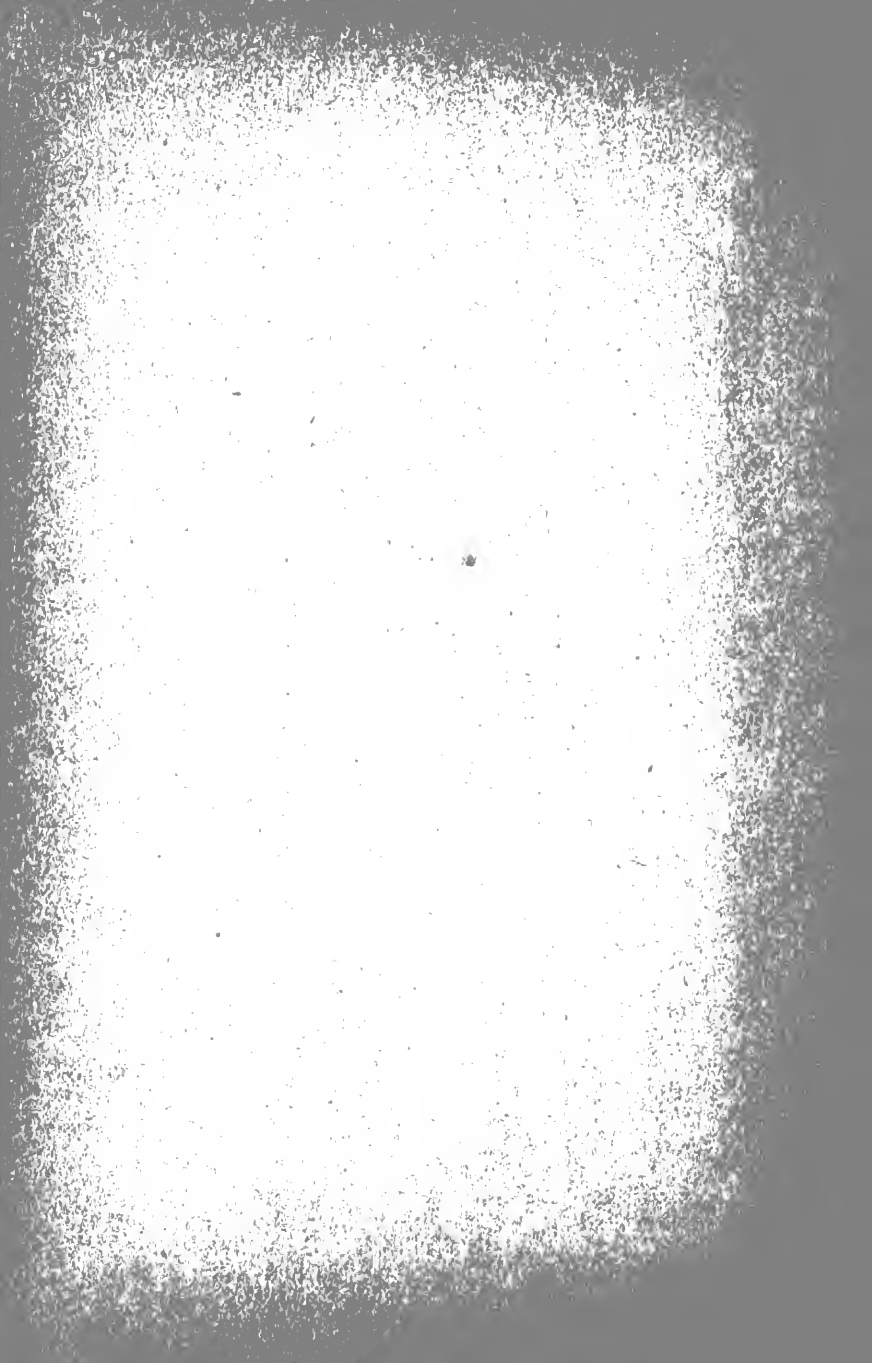
How to PAINT

PUBLISHED BY
A. S. ALOE - & C.

PRICE
ONE DOLLAR







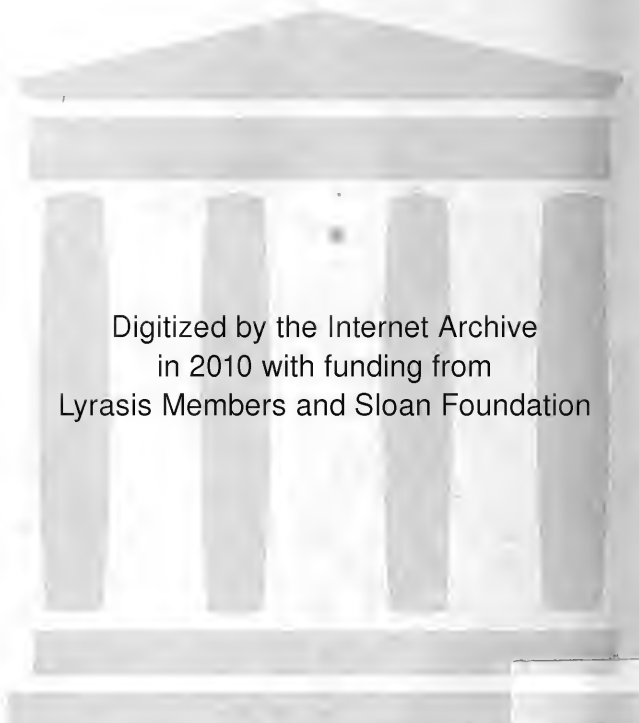
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HOW TO PAINT:

AN

INSTRUCTION BOOK

WITH

Full Description of all the Materials Necessary,

EMBRACING THE FOLLOWING BRANCHES:

*Oil Painting, China Painting, Pastel Drawing, Chromo Photography, Pencil Drawing,
Charcoal Drawing, Lustre Painting, Metallic Painting, Photograph Coloring,
Pyrography, Wood Carving, Etching, Pen and Ink Drawing, Colored
Crayon Drawing, Modeling in Clay, Wax and Plaster, Ken-
sington Painting, 18-Karat Painting, Tapestry
Painting, Velvet Painting, Crayon
Drawing, Etc., Etc.*

A. S. ALOE-COMPANY,

MANUFACTURERS, IMPORTERS AND DEALERS IN

Artist's Materials, Draughtsmen's Supplies

—AND—

Mathematical Instruments.

Office and Salesrooms: 415 North Broadway,

ST. LOUIS.

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BY

A. S. ALOE-COMPANY.

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INTRODUCTION.

IN "HOW TO PAINT" we offer the most complete Instruction Book on Art in general, and elaborate Price List of the necessary materials, ever published. The series of tints presented in our Tables are, for the chief part, employed by the most eminent artists in the profession. We have sought the highest authority in the several branches, and the information given is derived from sources eminently to be relied upon. In short, we have tabulated the results of the practice and experience of entire lives devoted to the subjects treated of. The adoption by the beginner of the deductions arrived at will save him much anxious thought and experiment, and secure results which he could never hope to attain by his unaided efforts.

Respectfully,

A. S. ALOE-COMPANY.

GRIFF GLOVER,
Manager Artists' Material Dept.

IMPORTANT NOTICE.

We have illustrated this work in such a manner as to make it easily understood. Do not mutilate the book. It is only necessary to give the quantity, name and size and number of articles desired.

Parties unknown to us should accompany their orders with the money, or give us convenient and satisfactory references as to their financial standing.

In all cases where orders are received to be forwarded *C. O. D.*, we shall use our judgment in sending or holding the goods, unless the order be accompanied by a remittance of at least double the express charges.

When goods are forwarded by express with *C. O. D.* bill, the Express Company's charges for collecting money will be added.

Goods ordered to be sent by mail by parties having no account with us, **MUST BE PREPAID**, including the required postage to forward the goods.

The best and surest method of remitting money is by bank draft or Post-Office order made payable to us.

All goods shipped at purchaser's risk.

No charge will be made for boxing goods purchased.

Claims for shortage must be made within five days from receipt of goods, **OR THEY WILL NOT BE ENTERTAINED.**

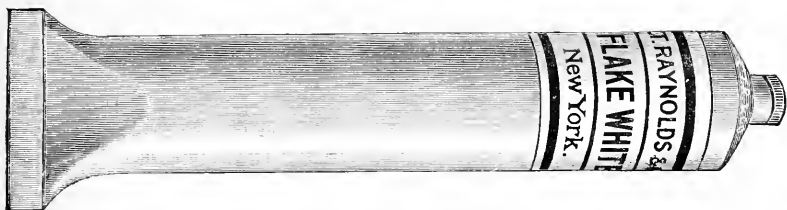
Any orders intrusted to us will be filled promptly, completely, and at the lowest market prices.

Respectfully,

A. S. ALOE-COMPANY.

GRIFF GLOVER,
Manager Artists' Material Dept.

OIL PAINTING.



No. 1006. Quadruple. 1 x 6 Inches.



No. 1000. Double. $\frac{3}{4}$ x 4 Inches.



Nos. 1001, 1002, 1003, 1004, 1005, 1007. $\frac{1}{2}$ x 4 Inches.

F. W. DEVOE AND C. T. RAYNOLDS & CO.'S' OIL COLORS. In Double or Large Size Tubes.

September 1, 1892, the houses of F. W. Devoe & Co. and C. T. Raynolds & Co. consolidated, and since that date they have manufactured but one line of oil colors, labeling them, however, "Devoe" or "Raynolds," as the trade may elect. We carry the tube bearing the Raynolds label.

These colors are made of the best and purest pigments, thoroughly ground in unadulterated oil, causing them to keep fresh without reference to time or climate.

We guarantee them of superior quality. Where a retailer intends to carry but one line of oil colors, he cannot do better than to carry this tube.

1000

CLASS A—Each, 10c; per dozen, \$1.20. Size, $\frac{3}{4}$ x 4 inches.

*American Vermilion

*Antwerp Blue

Asphaltum

Bistre

Bitumen

Blue Black

Brilliant Yellow

Brown Ochre

Burnt Roman Ochre

*Burnt Sienna

*Burnt Umber

Caledonian Brown

Cassel Earth

China White

Chinese Blue

Chrome Lemon

Chrome Yellow, Light

*Chrome Yellow, Medium

Chrome Yellow, Deep

Chrome Orange

Cologne Earth

Copal Megilp

Cork Black

*Cremnitz White

*Emerald Green

*Flake White

Flesh Ochre

Gold Ochre

*Indian Red

*Ivory Black

*King's Yellow

Lamp Black

Light Red

Light Raw Sienna

Megilp

Mummy

Oxford Ochre

Permanent White

*Prussian Blue

*Raw Sienna

*Raw Umber

Roman Ochre

*Silver White

Sugar of Lead

*Terre Verte

Transparent Gold Ochre

*Vandyke Brown

Venetian Red

*Yellow Ochre

Zinc White

Zinc Yellow.

* Colors the retailer should carry in stock, as they embrace the most essential and salable colors in this line.

OIL PAINTING—Continued.

F. W. DEVOE AND C. T. RAYNOLDS CO.S' ARTISTS' OIL COLORS—Continued.

In Double or Large Size Tubes.

1001 CLASS A—Each, 10c; per dozen, \$1.20. Size, $\frac{1}{2}$ x 4 inches.

Black Lead	Mauve, No. 2	Permanent Yellow
Bone Brown	Naples Yellow, Light	Persian Red
Brown Pink	*Naples Yellow, Medium	Prussian Brown
Burnt Terre Verte	Naples Yellow, Deep	Prussian Green
Cappah Brown	Naples Yellow, French	Purple Lake
Carmine Lake	Naples Yellow, Greenish	Red Brown
Chrome Green, Light	Naples Yellow, Reddish	Rose Pink
*Chrome Green, Medium	Neutral Tint	Sap Green
Chrome Green, Deep	*New Blue	*Scarlet Lake
Chrome Red	Olive Lake	Terra Rosa
*Crimson Lake	Olive Tint	Verdigris
French Green	Orpiment	Verona Brown
Gamboge	Paris Blue	Veronese Green
*Geranium Lake	Paris Green	Yellow Lake
Indian Lake	Payne's Grey	Zinobor Green, Ex. Light
Indigo	*Permanent Blue	Zinobor Green, Light
Italian Pink	Permanent Green, Light	*Zinobor Green, Medium
Magenta	Permanent Green, Medium	Zinobor Green, Deep
*Mauve, No. 1	Permanent Green, Deep	

1002 CLASS B—Each, 18c; per dozen, \$2.10. Size, $\frac{1}{2}$ x 4 inches.

Blue Verditer	Green Lake	Sepia
*Brown Madder	Imperial Orange	*Chinese Vermilion
Burnt Lake	Perfect Yellow	English Vermilion, Pale
Carnation Lake	Primrose Yellow	English Vermilion, Deep
*Cerulean Blue	Rose Carthame	French Vermilion
Citron Yellow	Rubens' Madder	Vermilion

1003 CLASS C—Each, 30c; per dozen, \$3.60. Size, $\frac{1}{2}$ x 4 inches.

Blue Madder	Jacqueminot Madder	Oxide of Chromium
Carmine, No. 2	*Lemon Yellow	“ “ Transparent
Cerulean Madder	Lemon Yellow, Pale	Paul Veronese Green
*Cobalt Blue	Madder Lake	Pink Madder
Cobalt Green	Madder Lake, Deep	Purple Madder
Deep Madder	Malachite Green	*Rose Madder
Emeraude Green	Mars Brown	Scarlet Madder
Extract of Gamboge	Mars Orange	Scarlet Vermilion
Extract of Vermilion	Mars Red	Strontian Yellow
Extra Deep Madder	Mars Violet	Vandyke Madder
French Ultramarine	Mars Yellow	Violet Madder
Geranium Madder	Olive Madder	Viridian
Green Madder	Orange Madder	
Indian Yellow	Orange Vermilion	

1004 CLASS D—Each, 35c; per dozen, \$4.20. Size, $\frac{1}{2}$ x 4 inches.

Cadmium Lemon	*Cadmium Yellow	Cadmium Red
Cadmium, Pale	Cadmium, Deep	Cadmium Orange
Cadmium, Light		

*Colors the retailer should carry in stock, as they embrace the most essential and salable colors in this line.

OIL PAINTING—Continued.

F. W. DEVOE AND C. T. RAYNOLDS CO.'S' ARTISTS' OIL COLORS—Continued.

In Double or Large Size Tubes.

1005 CLASS E—Each, 50c; per dozen, \$5.75. Size, $1\frac{1}{2}$ x4 inches.

Aurora Yellow	*French Carmine	Ultramarine Ash
Burnt Carmine	Madder Carmine	Yellow Madder.
Crimson Madder	Primrose Aureolin	

1006 QUADRUPLE TUPES—Each, 30c; per dozen, \$3.60. Size, 1x6 inches.

Cremnitz White	Flake White	Silver White
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1007 SPECIAL WHITE, for mixing with Madder—Each, 15c; per dozen, \$1.75. Size $\frac{1}{2}$ x4 in.**1008** RETAILERS' OIL-COLOR CASE, for above line.—Each, \$7.50. With 190 spaces.

This case will also be found valuable for art schools.

F. W. DEVOE AND C. T. RAYNOLDS & CO.'S' ARTISTS' OIL COLORS.

In Single Tubes.

1009 CLASS I—Each, 5c. Size, $\frac{1}{2}$ x4 inches.

*American Vermilion	Chrome Red	Naples Yellow, Deep
*Antwerp Blue	Cologne Earth	Naples Yellow, French
Asphaltum	Copal Megilp	Naples Yellow, Greenish
Bistre	Cork Black	Naples Yellow, Reddish
Bitumen	*Cremnitz White	Neutral Tint
Black Lead	*Crimson Lake	*New Blue
Blue Black	*Emerald Green	Olive Lake
Bone Brown	*Flake White	Olive Tint
Brilliant Yellow	Flesh Ochre	Orpiment
Brown Ochre	French Green	Oxford Ochre
Brown Pink	Gamboge	Paris Blue
Burnt Roman Ochre	Gold Ochre	Paris Green
*Burnt Sienna	*Geranium Lake	Payne's Grey
Burnt Terre Verte	Indian Lake	*Permanent Blue
*Burnt Umber	*Indian Red	Permanent Green, Light
Caledonian Brown	Indigo	Permanent Green, Medium
Cappah Brown	Italian Pink	Permanent Green, Deep
Carmine Lake	*Ivory Black	Permanent White
Cassel Earth	*King's Yellow	Permanent Yellow
China White	Lamp Black	Persian Red
Chinese Blue	Light Red	Prussian Blue
Chrome Green, Light	Light Raw Sienna	Prussian Brown
*Chrome Green, Medium	Magenta	Prussian Green
Chrome Green, Deep	*Mauve, No. 1	Purple Lake
Chrome Lemon	Mauve, No. 2	*Raw Sienna
Chrome Yellow, Light	Megilp	*Raw Umber
*Chrome Yellow, Medium	Mummy	Red Brown
Chrome Yellow, Deep	Naples Yellow, Light	Roman Ochre
Chrome Orange	*Naples Yellow, Medium	Rose Pink

* Colors the retailer should carry in stock, as they are the most essential and salable.

OIL PAINTING—Continued.

F. W. DEVOE AND C. T. RAYNOLDS & CO.S' ARTISTS' OIL COLORS—Continued.

In Single Tubes.

Sap Green	*Vandyke Brown	Zinc White
*Scarlet Lake	Venetian Red	Zinc Yellow.
*Silver White	Verdigris	Zinober Green, Ex. Light
Sugar of Lead	Verona Brown	Zinober Green, Light
Terra Rosa	Veronese Green	*Zinober Green, Medium
*Terre Verte	*Yellow Ochre	Zinober Green, Deep
Transparent Gold Ochre	Yellow Lake	

1010 CLASS II—Per dozen, \$1.60. Size, $\frac{1}{2}$ x2 inches.

Blue Verditer	English Vermilion, Deep	Primrose Yellow
*Brown Madder	English Vermilion, Pale	Rembrandt's Madder
Burnt Lake	French Vermilion	Rose Carthame
Carnation Lake	Green Lake	Rubens' Madder
*Cerulean Blue	Imperial Orange	Sepia
*Chinese Vermilion	Perfect Yellow	Vermilion
Citron Yellow		

1011 CLASS III—Each, 20c. Size, $\frac{1}{2}$ x2 inches.

Blue Madder	Green Madder	Orange Madder
Carmine, No. 2	Indian Yellow	Orange Vermilion
Cerulean Madder	Jacqueminot Madder	Oxide of Chromium
*Cobalt Blue	*Lemon Yellow	“ “ Transparent
Cobalt Green	Lemon Yellow, Pale	Paul Veronese Green
Crimson Madder	Madder Carmine	Pink Madder
Crimson Madder, Intense	Madder Lake	Purple Madder
Deep Madder	Madder Lake, Deep	*Rose Madder
Emeraude Green	Malachite Green	Scarlet Madder
Extra Deep Madder	Mars Brown	Scarlet Vermilion
Extra Madder Carmine	Mars Orange	Strontian Yellow
Extract of Gamboge	Mars Red	Vandyke Madder
Extract of Vermilion	Mars Violet	Violet Madder
French Ultramarine	Mars Yellow	Viridian
Geranium Madder	Olive Madder	Yellow Madder

1012 CLASS IV—Each, 25c. Size, $\frac{1}{2}$ x2 inches.

Cadmium Lemon	*Cadmium Yellow	Cadmium Red
Cadmium, Pale	Cadmium, Deep	Cadmium Orange
Cadmium, Light		

1013 CLASS VI—Each, 35c. Size, $\frac{1}{2}$ x2 inches.

Burnt Carmine	*French Carmine	Ultramarine Ash
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1014 CLASS VII—Each, 50c. Size, $\frac{1}{2}$ x2 inches.

Aurora Yellow	Primrose Aureolin
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1015 SPECIAL, WHITE, for mixing with Madder—Each, 15c. Size, $\frac{1}{2}$ x2 inches.**1016** RETAILERS' OIL-COLOR CASES—With 183 spaces, \$3.60.

* Colors the retailer should carry in stock, as they are the most essential and salable.

OIL PAINTING—Continued.

WINSOR & NEWTON'S PREPARED OIL COLORS IN TUBE.

1017

Each, 7 cents.

*Antwerp Blue	*Emerald Green	Olive Lake
*Asphaltum (thick)	*Flake White	Orpiment
*Bitumen	Gamboge	Oxford Ochre
Black Lead	Indian Lake	Payne's Grey
Blue Black	*Indian Red	*Permanent Blue
Bone Brown	Indigo	Permanent White
Brown Ochre	Italian Pink	Permanent Yellow
Brown Pink	*Ivory Black	*Prussian Blue
Burnt Roman Ochre	Jaune Brillant	Prussian Brown
*Burnt Sienna	*King's Yellow	Prussian Green
*Burnt Umber	Lamp Black	*Purple Lake
Caledonian Brown	Light Red	Pyne's Megilp
Cappah Brown	*Magenta	*Raw Sienna
Cassel Earth	*Mauve	*Raw Umber
Chinese Blue	*Mauve, No. 2	Roman Ochre
Chrome Green, No. 1	Medium (Improved Megilp)	Roman Ochre, Cool
*Chrome Green, No. 2	Megilp	Sap Green
Chrome Green, No. 3	Monochrome Tint, Cool, 1	*Scarlet Lake
Chrome Lemon	Monochrome Tint, Cool, 2	*Silver White
*Chrome Yellow	Monochrome Tint, Cool, 3	Sugar of Lead
Chrome, Deep	Monochrome Tint, Warm, 1	Terra Rosa
*Chrome Orange	Monochrome Tint, Warm, 2	*Terre Verte
Chrome Red	Monochrome Tint, Warm, 3	Transparent Gold Ochre
Cinnabar Green, Light	Mummy	*Vandyke Brown
*Cinnabar Green, Middle	Naples Yellow, French	*Venetian Red
Cinnabar Green, Deep	*Naples Yellow	Verdigris
Cologne Earth	Neutral Tint	Verona Brown
Copal Megilp	*New Blue	Yellow Lake
Cork Black	Nottingham White	*Yellow Ochre
*Cremnitz White	Olive Green	Zinc White
*Crimson Lake		

1018

Each, 13 cents.

Alizarin Crimson	French Vermilion	Rubens' Madder
*Brown Madder	*Geranium Lake	Sepia
Burnt Lake	Green Lake, Light	Vermilion, Pale
Cerulean Blue	Green Lake, Deep	*Vermilion
*Chinese Vermilion	Rembrandt's Madder	

1019

Each, 21 cents.

Brilliant Ultramarine	Lemon Yellow, Pale	Orange Vermilion
Carmine, No. 2	*Lemon Yellow	Oxide of Chromium
Citron Yellow	Madder Lake	“ “ Transparent
*Cobalt Blue	Malachite Green	Pink Madder
Cobalt Green	Mars Brown	Purple Madder
Extract of Vermilion	Mars Orange	*Rose Madder
French Ultramarine	Mars Red	Scarlet Madder
French Veronese Green	Mars Violet	Scarlet Vermilion
Indian Yellow	Mars Yellow	Strontian Yellow
Leitch's Blue	Mineral Grey	Viridian

* Colors the retailer should carry in stock, as they are the most essential and salable.

OIL PAINTING—Continued.

WINSOR & NEWTON'S PREPARED OIL COLORS IN TUBE—Continued.

1020	Each, 35 cents.	
Aureolin	*Carmine, Finest	Orient Yellow
Burnt Carmine	Crimson Madder	Permanent Mauve
Cadmium Yellow, Pale	Field's Orange Vermilion	Violet Carmine
*Cadmium Yellow	Indian Purple	Yellow Carmine
Cadmium Orange	Madder Carmine	
1021	Each, 50 cents.	
Aurora Yellow		Primrose Aureolin
1022	Each, 60 cents.	
Extra Madder Carmine	Extra Purple Madder	Ultramarine Ash
1023	DOUBLE TUBES—Each, 14 cents.	
Cremnitz White	Flake White	Silver White
1024	QUADRUPLE TUBES—Each, 28 cents.	
Cremnitz White	Flake White	Silver White
1025	<i>RETAILERS' OIL-COLOR CASES—With 183 spaces, \$3.60.</i>	

THE LEADING SCHOENFELD'S GERMAN OIL COLORS.

Constantly in stock. In Collapsible Tubes.

It is claimed by many that Schoenfeld excels in the manufacture of the following colors:

1026	Each.		Each.		Each.
Cadmium, No. 1, citron.....	\$0 35	Cadmium, No. 5, orange..	\$0 40	Zinober Green, light	\$0 07
Cadmium, No. 2, light.....	35	Greenish Naples Yellow..	07	Zinober Green, medium..	07
Cadmium, No. 3, medium	35	Reddish Naples Yellow....	07	Zinober Green, deep.....	07
Cadmium, No. 4, deep	35	Zinober Green, ex. light.	07		
Schoenfeld's Double Cremnitz White (this is one of the best Whites made)					14

Other Colors furnished if desired.

ROBERSON'S MEDIUM.

1027	Treble Size Tubes.....	Each, \$0 50
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The best medium known for mixing with Madders, etc., for glazing.

* Colors the retailer should carry in stock, as they are the most essential and salable.



OIL PAINTING—Continued.

Description of Oil and Water Colors.

Two criticisms are often leveled by thoughtless people at the head of Artists' Colormen, and of these we have decided to take some practical notice. It is alleged:

- I. That Artists' Colormen are in the habit of selling Colors which are not permanent; and
- II. That they keep Artists in ignorance of the Composition of the Colors they sell.

We have decided to furnish the best information obtainable relative to the merits and characteristics of each Color listed in this work.

American Vermillion. A bright Red; opaque; a slow drier; quality poor.

Antwerp Blue. A weak variety of Prussian Blue; greenish cast; great transparency and body; moderately permanent; a good drier; washes very well.

Asphaltum. Mineral Pitch obtained from Egypt; a dark Brown; transparent; moderately permanent; dries quickly.

Alizarin Crimson. A Lake prepared from artificial Alizarin; transparent; permanent; mixing well with Zinc White; a fair drier.

Aureolin. Double Nitrite of Cobalt and Potassium; a superb Yellow; very brilliant; permanent; mixes well with Cobalt, Rose Madder and White, or with Cobalt, Brown Madder and White to produce beautiful Greys for atmospheric effects; also effective when combined with Reds and Browns; dries well.

Aurora Yellow. An opaque and brilliant variety of Sulphide of Cadmium; it vies with genuine Ultramarine in its combination of exquisite beauty with unflinching durability; a good drier.

Bistre. A brown soot obtained from wood, and used in Water Color; permanent; little used; a fair drier; washes well.

Bitumen. Synonymous with Asphaltum, except that it is ground in strong drying oil, making it better for Artists' use; dries quickly.

Black Lead. Prepared Graphite; permanent; little used; very opaque; a poor drier.

Blue Black. A variety of Carbon Black, prepared by charring woody tissue; permanent; weak; used in mixing Greys for landscapes; a fair drier; washes well.

Bone Brown. Charred bone dust; permanent; a bad drier; combines well with White; has little, if any, yellow cast.

Brilliant Ultramarine. The finest brand of French Ultramarine obtainable; permanent; an exquisitely beautiful Blue; varies from the utmost depth to the highest brilliancy of light and color; carries light and air into all colors, and remains pure when mixed with White; a fair drier.

Brilliant Yellow. Moderately permanent; little used; a good drier.

Brown Madder. Lake prepared from the Madder Root; a rich lakey Brown of great depth; very transparent; permanent; a good drier. With French Blue or Cobalt and White, warm or cold Greys; result according to proportions; rich Greens are obtained by mixing with Blues and bright Yellows; washes very well.

Brown Ochre. Native earth; a dark, Brownish Yellow of rich mellow tint; a friendly color in mixing and very serviceable in foregrounds; a good drier; washes very well.

Brown Pink. Lake made from Quercitron Bark; moderately permanent; a rich transparent Olive, with a suggestion of both Green and Orange; a poor drier; washes well.

Burnt Carmine. Obtained from Madder Carmine; permanent; a deep, rich, wholesome Red; a fair drier; serviceable in autumn foliage; washes very well.

Burnt Lake. Obtained from Madder Lake; moderately permanent; transparent; a Brownish Red; a fair drier.

Burnt Roman Ochre. Calcined native earth; permanent; semi-transparent; a rich Brown, with a tinge of Orange.

Burnt Sienna. Calcined Raw Sienna; permanent; it is of a Brown-Orange or Orange-Russet color, and is richer, deeper and more transparent than Raw Sienna; washes very well.

Burnt Umber. Calcined Raw Umber; permanent Brown; low in tone; effective for warm shadows; a good drier; washes very well.

Burnt Terre Verte. Calcined Terre Verte; a Brownish Green; permanent.

Blue Madder. Fugitive; a beautiful transparent Blue.

Blue Verditer. Fugitive; a Bluish Green; little used.

OIL PAINTING—Continued.

- Cadmium, Light.*
Cadmium Lemon.
Cadmium Yellow, Pale.
Cadmium Yellow.
Cadmium Orange.
Cadmium, Deep.
Cadmium Red.
- } Different varieties of Sulphide of Cadmium; they differ from Aurora Yellow in possessing a certain amount of transparency; permanent. These Cadmiums vary from a delicate Straw color to an intense Reddish Yellow, and their several shades are best described by their respective names; very serviceable; wash very well.
- Caledonian Brown.* The original Caledonian Brown being no longer obtainable, a close imitation is prepared from Sienna and Vandyke Brown; permanent; a rich warm Brown; a fair drier.
- Cappagh Brown.* Permanent; a deep, rich Brown; a good drier.
- Carmin.*
Carmin, No. 2.
- } Lakes prepared from Cochineal; fugitive; a very rich and intense lakey Red; a poor drier; wash very well.
- Cassel Earth.* Synonymous with Vandyke Brown.
- Chinese Blue.* Synonymous with Prussian Blue.
- Cerulean Blue.* Stannate of Cobalt; moderately permanent; has the distinctive property of appearing a fairly pure Blue by artificial light; is very delicate; a fair drier.
- Charcoal Grey.* The composition of this color is expressed by its name; Water Color only.
- Chinese Vermillion.* The genuine article imported from China; fairly permanent; a refined bright Red; opaque.
- Chinese White.* A specially dense variety of Oxide of Zinc, used only in Water Color; it should be noted that ordinary Zinc White is often sold as Chinese White; buyers should, therefore, test it for covering power on a piece of black paper; permanent.
- Chrome Greens.* Preparations of Chrome Yellow and Prussian Blue; moderately permanent; bright Greens in three shades.
- Chrome Lemon.* A combination of Chromate and Sulphate of Lead; moderately permanent; washes well.
- Chrome Yellow.* Normal Chromate of Lead; moderately permanent; use with caution; a brilliant Yellow; a fair drier; washes well.
- Chrome, Deep.*
Chrome Orange.
Chrome Red
- } Moderately permanent; shades designated by names; fair washers.
- Cinnabar Greens.* Similar in composition to Chrome Greens, but a deeper variety of Chrome Yellow is employed; moderately permanent; soft and mellow in effect.
- Citron Yellow.* Chromate of Zinc; fugitive; little used.
- Cobalt Blue.* Alumina tintured with Oxide of Cobalt; Cobalt Blue is unusually free from a tendency to become greenish on exposure; permanent; a pure light azure; with Light Red gives beautiful cloud tints; with Brown Madder rare pearly neutrals are obtained; washes very well.
- Cobalt Green.* Zinc Oxide tintured with Oxide of Cobalt; permanent; an exquisite Blue Green of great brilliancy.
- Cologne Earth.* Calcined Vandyke Brown; permanent; resembles Vandyke Brown, but cooler.
- Cork Black.* A variety of Carbon Black, obtained by charring cork; permanent; dull; little used.
- Cremnitz White.* Basic of Carbonate of Lead; permanent on exposure to light, etc., but sullied in an atmosphere containing sulphuretted hydrogen, and yellowed by reaction with the oil medium.
- Crimson Lake.* A Lake prepared from Cochineal; fugitive; a beautiful Crimson; transparent; washes very well.
- Crimson Madder.* A Lake prepared from the Madder Root; fairly permanent; very intense; transparent.
- Carmin Lake.* Fugitive; a deep, rich Crimson.
- China White.* Moderately permanent; little used.
- Copal Megilp.* A combination of Pale Drying Oil and Copal Varnish; not a color, simply a medium.
- Carnation Lake.* Fugitive; a rich, beautiful Red.
- Cerulean Madder.* Moderately permanent; a delicate azure; very beautiful.
- Deep Madder.* Fugitive; a deep, rich Crimson; transparent

OIL PAINTING—Continued.

- Dragons' Blood.** The genuine Dragons' Blood (a resin) being fugitive, an imitative pigment is now prepared, for use in Water Color only, from Burnt Sienna, Cochineal Lake and Gamboge.
- Extract of Vermilion.** Now synonymous with Scarlet Vermilion.
- Emerald Green.** A brilliant light Green; permanent to light, etc., but darkened by sulphuretted hydrogen, the change being facilitated by the slight solubility of these pigments in oil; washes well.
- English Vermilion, Pale.** } See Vermilion; shades designated by names.
English Vermilion, Deep. }
- Extra Deep Madder.** Fugitive; a deep, rich Red; little used.
- Extra Madder Carmine.** Moderately permanent; an intense Crimson; a poor drier.
- Emeraude Green.** Moderately permanent; a delicate Green.
- Extract of Gamboge.** Moderately permanent; a bright, transparent Yellow; has little depth.
- Field's Orange Vermilion.** A specially levigated variety of Orange Vermilion.
- Flake White.** Basic Carbonate of Lead; permanent on exposure to light, etc., but sullied in an atmosphere containing sulphuretted hydrogen, and yellowed by reaction with the oil medium.
- French Blue.** } Artificial Ultramarines; quite permanent; washes fairly well.
French Ultramarine. }
- French Vermilion.** A variety of Sulphide of Mercury; permanent; a bright Red; more delicate than Chinese or plain Vermilion.
- French Veronese Green.** Synonymous with Viridian.
- Flesh Ochre.** Permanent; a Brown Yellow; a good drier.
- French Green.** Moderately permanent; a vivid Green.
- French Carmine.** Synonymous with Carmine.
- Gallstone.** The real Gallstone (from the bladders of oxen) being excessively fugitive, an imitation is prepared from Yellow Carmine; it is employed only in Water Color; washes very well.
- Gamboge.** A preparation of the gum resin known under this name; fugitive; a brilliant Yellow; transparent; washes very well.
- Geranium Lake.** An extremely fugitive Lake prepared from an artificial dye; a deep transparent Red; beautiful and delicate when mixed with White.
- Green Lake, Light.** } Combinations of Quercitron Lake and Prussian Blue; fugitive; semi-transparent.
Green Lake, Deep. }
- Gold Ochre.** Permanent; a golden Yellow Brown.
- Geranium Madder.** Fugitive; more intense than Geranium Lake.
- Green Madder.** Fugitive; semi-transparent Green; a poor drier.
- Hooker's Green, No. 1.** } Water Color pigments, prepared from Prussian Blue and Gamboge; fugitive. These mixed colors do not fade right out, but only fade in respect of their fugitive constituents. Inasmuch, however, as the strength of a chain is only that of its weakest link, we have been compelled to class them with the fugitive colors. Warm, beautiful Greens; good washers.
 " " No. 2. }
- Indian Lake.** A Lake obtained from lac; a Crimson Brown; fugitive.
- Indian Purple.** Was originally a Cochineal Lake with a base of copper. An excellent substitute for this fugitive pigment is now manufactured from Madder Lake and French Ultramarine. Moderately permanent; a dark Grey-toned Brown, with a suggestion of Purple.
- Indian Red.** A variety of Iron Oxide; permanent; a warm Brownish Red; very serviceable; washes well.
- Indian Yellow.** Prepared "Purree" imported from India. A good deal of the permanence of this color depends on its careful purification. A rich pure Yellow, forming full rich Greens; washes well.
- Indigo.** A vegetable Blue extracted from the Indigo Plant; fugitive; a dark Blue; too strong for general use; washes very well.
- Intense Blue.** An extract of Indigo, used only as a Water Color; fugitive; washes badly.
- Italian Pink.** Lake obtained from Quercitron Bark; a warm, transparent Yellow; fugitive; washes very well.

OIL PAINTING—Continued.

- Ivory Black.** Carbon Black, prepared by charring Ivory; permanent; the richest and most transparent of all the Blacks; washes very well.
- Imperial Orange.** Moderately permanent; Red, with an Orange cast. One of the most useful colors we know of for sketching warm sunset tints, autumn foliage; with this pigment the most intense sunset effects may be obtained, and still a low key maintained.
- Jaune Brilliant.** A variety of Naples Yellow, prepared from Chrome Yellow and White Lead; permanent on exposure to light, etc., but sullied in an atmosphere containing sulphuretted hydrogen, and yellowed by reaction with the oil medium; a delicate bright Yellow.
- Jacqueminot Madder.** Fugitive; the exact color of the rose from which it derives its name.
- King's Yellow.** In Water Color the original Sulphide of Arsenic is used. In Oil a tolerably permanent imitation of this fugitive pigment is made from Chrome Yellow and Zinc White. A bright, beautiful Yellow; washes badly.
- Lamp Black.** A variety of Carbon Black obtained by the imperfect combustion of hydro-carbons; permanent; a poor drier; washes very well.
- Leitch's Blue.** A combination of Prussian Blue and Cobalt; fugitive; a deep, semi-transparent Blue.
- Lemon Yellow, Pale.** } Preparations of Chromate of Barium. It may be well to state that a more
Lemon Yellow. } brilliant, but more fugitive, preparation of Chromate of Strontium is
 sold by some houses under the name of "Lemon Yellow." This pig-
 ment is sold by us as "*Strontian Yellow*." Permanent; a beautiful, light,
 vivid Yellow; very useful in high lights.
- Light Red.** Calcined Yellow Ochre; permanent; a Red of an Orange hue; very useful; washes well.
- Light Raw Sienna.** Permanent; more delicate than Raw Sienna.
- Madder Carmine.** } Lakes prepared from the Madder Root; fairly permanent; beautiful,
Madder Carmine, Extra. } deep, rich Reds.
- Madder Lake.** A synonym for Rose Madder.
- Madder Lake, Deep.** More intense than above; fugitive.
- Magenta.** Aniline Lake; very fugitive; a rich Red of rare beauty.
- Malachite Green.** Native Carbonate of Copper carefully prepared. We find the genuine Malachite stands much better than the artificial Carbonate of Copper often sold as Malachite Green. Permanent to light, etc., but darkened by sulphuretted hydrogen, the change being facilitated by the slight solubility of these pigments in oil; a delicate cool Green.
- Mars Brown.** } Earths containing Oxide of Iron as the essential coloring constituent, and differ-
Mars Orange. } ing mainly in the temperature to which they have been subjected. Per-
Mars Red. } manent. The colors are well described by their names, being Browns, low
Mars Violet. } and rich in key, with a tinge of the second color suggested in their respect-
Mars Yellow. } ive names.
- Mauve.** } Aniline Lakes, Mauve No. 2 being the bluer variety. No. 1 is of a reddish nature.
Mauve, No. 2. } Very fugitive, and as beautiful as they are dangerous.
- Mineral Grey.** A very admirable pigment, prepared from the inferior grades of genuine Ultramarine. It has lately been much improved, and has a beautiful translucent quality and dries capitally. Permanent. There is a strong suggestion of Green in this color.
- Monochrome Tints, Warm.** Intimate combinations of Flake White and Umber; very little used.
- Monochrome Tints, Cool.** Combinations of Carbon Black and Flake White; very little used.
- Megilp.** A combination of Pale Drying Oil and Mastic Varnish. It possesses a gelatinous texture. Mixed with color it flows freely from the brush, and keeps its place in painting and glazing.
- Mummy.** A synonym for Bitumen.
- Naples Yellow.** In Water Color this consists of a combination of Zinc White and Cadmium Yellow. In Oil it is obtained by blending Lead White and Cadmium with a dash of Ochre. Moderately permanent; a Greenish Yellow, affording light, clear, sunny tints; washes pretty well.
- Naples Yellow, French.** Is prepared solely as an Oil Color, and is similar in composition to Naples Yellow—only differing in the proportions of the ingredients; moderately permanent.

OIL PAINTING—Continued.

- Neutral Tint.** In Water Color is made from Indigo, Cochineal Lake and Carbon Black, according to the old formula. In Oil this has been replaced by an intimate combination of Carbon Black, Ochre and French Ultramarine—a thoroughly durable mixture. Neutral tint, both in Water and Oil; differs from Payne's Grey only in the proportions of its constituents; moderately permanent; a very dark, beautiful Grey; very useful; washes very well.
- Neutral Orange.** A mixture of Cadmium Yellow and Venetian Red; moderately permanent; a subdued Orange tint.
- New Blue.** A pale variety of French Ultramarine; permanent; one of the most serviceable Blues made, especially in Water Colors; washes well.
- Nottingham White.** Synonymous with Flake White.
- Naples Yellow, Light.** Moderately permanent; a light shade of Naples Yellow.
- Naples Yellow, Deep.** Moderately permanent; a deep shade of Naples Yellow.
- Naples Yellow, Greenish.** Moderately permanent; charming for sunlight effects in foliage.
- Naples Yellow, Reddish.** Moderately permanent; very serviceable in flesh.
- Olive Green.** In Water Color this consists of a combination of Indian Yellow, Umber and Indigo. In Oil it is prepared from Quercitron Lake and Prussian Blue. Fugitive; a beautiful, deep, warm Green, low and rich in tone; washes very well.
- Olive Lake.** Quercitron Lake and Bone Brown blended with Ultramarine; fugitive; more delicate than Olive Green.
- Orange Vermilion.** Sulphide of Mercury; permanent; a rich Orange color of great warmth; washes badly.
- Orient Yellow.** An opaque variety of Cadmium Yellow, similar in quality to Aurora Yellow, but of a much deeper hue; fairly permanent.
- Orpiment.** Synonymous with King's Yellow.
- Oxide of Chromium.** Permanent; is, as suggested by its name, Chromium Sesquioxide; no praise can be too high for this most durable and unassumingly beautiful pigment; one of the few permanent Greens; warm, mellow and soft.
- Oxide of Chromium, Transparent.** A hydrated variety of Chromium Sesquioxide; a trifle more vivid than the above.
- Oxford Ochre.** Synonymous with Yellow Ochre.
- Orange Madder.** Moderately permanent; a semi-transparent Orange.
- Payne's Grey.** In Water Color this compound pigment is still prepared from Indigo, Cochineal Lake and Carbon Black; in Oil, from Carbon Black, Ochre and French Ultramarine; washes very well.
- Permanent Blue.** A variety of French Ultramarine; moderately permanent; similar in hue to Cobalt Blue, but a greater depth and transparency.
- Permanent Mauve.** Fairly permanent; a beautiful true Purple.
- Permanent Violet.** A new mineral pigment containing Manganese as its tinctorial constituent; fairly permanent; a beautiful Violet; a fair drier.
- Permanent White.** Synonymous with Zinc White in Oil, and with Chinese White in Water Color.
- Permanent Yellow.** A preparation of Chromate of Barium and Zinc White; fairly permanent; a warm Yellow.
- Pink Madder.** A variety of Rose Madder leaning toward Pink; permanent; delicate and beautiful; washes very well.
- Primrose Aureolin.** A very pale and delicate variety of Aureolin, introduced in 1889; it is, if anything, more permanent than ordinary Aureolin.
- Prussian Blue.** Ferrocyanide of Iron, the insoluble variety; moderately permanent; a deep and powerful transparent Blue, drying and glazing well; borders slightly on Green; washes very well.
- Prussian Brown.** Prepared from Prussian Blue by calcination; permanent; a soft Yellow Brown.
- Prussian Green.** A mixture of Gamboge and Prussian Blue in Water Color, and of Italian Pink and Prussian Blue in Oil; fugitive; a deep, vivid, transparent Green, with a suggestion of Blue; washes well.
- Pure Scarlet.** Mercuric Iodide; used only as a Water Color; of all artistic pigments it is at once the most dazzling and most fugitive; washes badly.
- Purple Lake.** A Purple modification of Crimson Lake; fugitive; washes very well.

OIL PAINTING—Continued.

- Purple Madder.* } Lakes prepared from the Madder Root; fairly permanent; a warm, whole-
Purple Madder, Extra. } some Purplish Brown.
- Paris Blue.* Fairly permanent; an intense, deep Blue.
- Paris Green.* Fugitive; a beautiful Green suggesting Blue.
- Permanent Green, Light.* } Fairly permanent; true Green of great strength and purity in color,
Permanent Green, Medium. } but difficult for the amateur to manage
Permanent Green, Deep. }
- Persian Red.* Moderately permanent; a deep Brownish Red.
- Perfect Yellow.* Moderately permanent; a bright, true Yellow.
- Primrose Yellow.* Partly permanent; a delicate, bright Yellow.
- Paul Veronese Green.* Fugitive; a delicate Bluish Green.
- Raw Sienna.* The native earth carefully prepared for artistic use; permanent; of a rather impure Yellow; of great service in landscapes; washes well.
- Raw Umber.* Native Umber of very fine quality and possessing a greenish cast of color which is so much prized by Artists; permanent; a Yellowish Brown of great service; washes very well.
- Rembrandt's Madder.* Lake prepared from the Madder Root; permanent; a rich Red, transparent Brown; very serviceable.
- Red Brown.* Permanent; a warm Red Brown.
- Rose Pink.* Moderately permanent; a Reddish Ochre.
- Rose Carthame.* Fugitive; a beautiful Red, giving, with White, pure rose tints free from purple cast.
- Roman Ochre.* } Prepared native earths; permanent; rich Yellow Browns; very useful.
Roman Ochre, Cool. }
- Roman Sepia.* Sepia tinted with a little Sienna; it is used only in Water Color; permanent; a powerful Yellow Brown, of extremely fine texture.
- Rose Lake.* A new color, somewhat similar in composition to Geranium Lake, but possessing a rather opaque quality. It is, however, considerably more rosy in hue than Geranium Lake. No guarantee can be given of the permanence of this color.
- Rose Madder.* A Lake of exquisite beauty, prepared from the Madder Root. Rose Madder has long been renowned for its delicate bloom, transparency and the clearness of its tint with White. This favorite color is consequently a great specialty. Permanent; washes very well.
- Rubens' Madder.* This beautiful Lake is also prepared from the Madder Root and resembles the Orange-Brown Lake, which is so well known to those who are familiar with Rubens' pictures; permanent.
- Sap Green.* In Water Color is a mixture of the genuine Sap Green (a concreted vegetable juice) with Green Lake. In Oil the color is a combination of Quercitron Lake, Ultramarine and Bone Brown. Fugitive; a warm, rich, low-toned Green; washes well.
- Scarlet Lake.* An intimate combination of Vermilion and Alizarin Crimson; fugitive; a transparent, brilliant Red; washes well.
- Scarlet Madder.* A beautiful, but rather weak variety of Rose Madder; it gives exquisite tints with White; permanent.
- Scarlet Vermilion.* Sulphide of Mercury; permanent; differs from Vermilion only in being more Scarlet in hue; washes middling well.
- Sepia.* In Water Color the genuine cuttlefish bags are prepared for painting. In Oil the natural pigment is ineligible, and an imitative mixture of Carbon Black and Vandyke Brown passes under the name. Permanent; a beautiful, warm Brown; a bad drier; washes extremely well.
- Silver White.* Synonymous with Cremnitz White.
- Sky Blue.* A cheap imitation of Cobalt, consisting of Ultramarine, with a trace of Lemon Yellow; moderately permanent; little used.
- Smalt.* Silicate of Cobalt; used only as a Water Color; moderately permanent; gritty; a poor washer; little used.
- Strontian Yellow.* Chromate of Strontium; it is a very beautiful Yellow, but turns Green by exposure, and therefore is far inferior as a pigment to Lemon Yellow (Chromate of Barium); washes very well.
- Terra Rosa.* An artificial earth, tinctured with Sesquioxide of Iron; permanent; a delicate Reddish Yellow. It stands midway between light Red and Venetian Red, and combines the transparency of the former with the Scarlet hue of the latter.

OIL PAINTING—Continued.

- Terre Verte.** The native earths carefully selected. Terre Verte requires to be skillfully prepared to keep its color well. Permanent; a somber Green; very useful.
- Transparent Gold Ochre.** Permanent; a good drier; the most transparent of all the Ochres. It is similar to Raw Sienna, but is brighter and purer in color, and has more of an Orange hue.
- Ultramarine, Genuine.** The choicest extract of Lapis Lazuli; permanent. The most costly and celebrated of all pigments. It is an exquisitely beautiful Blue. In the representation of sky and atmosphere it has no rival. In Water Color it is a bad washer.
- Ultramarine Ash.** The second quality of Blue obtained from Lapis Lazuli. It excels in the beauty and translucency of its color. Ultramarine Ash dries well, and is altogether one of the most admirable pigments we know. These remarks, of course, apply equally well to genuine Ultramarine; but expense debars many Artists from using the latter. Permanent; washes badly.
- Vandyke Brown.** The native earth prepared for painting; permanent; a rich, transparent Brown; very useful; washes very well.
- Venetian Red.** Artificially-prepared Sesquioxide of Iron; permanent; a Yellowish Red with a Scarlet tint; very useful; washes well.
- Verdigris.** Subacetate of Copper; fugitive; a beautiful, vivid Green; washes well; soluble in oil, and blackened by sulphuretted hydrogen. In every way a bad color under the present conditions of oil painting.
- Vermilion, Pale.** } Varieties of Mercuric Sulphide; permanent; a true, bright Red; very useful; a
Vermilion. } slow drier; washes badly.
- Verona Brown.** A native ferruginous earth calcined; permanent; a transparent Brown of no great depth of color; a good drier.
- Violet Carmine.** A Lake obtained from the root of the "Anchusa Tinctoria;" fugitive; a brilliant Bluish Purple; very rich in tone.
- Viridian.** A hydrated and very transparent variety of Chromium Sesquioxide, Permanent; a Bluish Green possessing great depth of color; no mixture of blue and yellow pigments will afford a Green so beautiful and stable.
- Veronese Green.** Fugitive; an exquisite Bluish Green.
- Vandyke Madder.** Moderately permanent; a Purplish Brown; little used.
- Violet Madder.** Fugitive; a transparent Violet.
- Warm Sepia.** A Water Color pigment, prepared by tinting Sepia with Cochineal Lake and Sienna; fugitive. These mixed colors do not fade right out, but only fade in respect of their fugitive constituents. Inasmuch, however, as the strength of a chain is only that of its weakest link, we have been compelled to class them with the fugitive colors. It is a natural Sepia warmed by mixing with Browns of a Red hue.
- Yellow Madder.** Fugitive; a transparent Yellow.
- Yellow Carmine.** A concentrated Lake prepared from Quercitron Bark. It is sometimes called "Yellow Madder." Fugitive; a rich, powerful, transparent Yellow, so admirable that want of permanence is a disaster.
- Yellow Ochre.** The native earth carefully prepared; permanent; a tolerably bright Yellow; indispensable; washes well.
- Yellow Lake.** A bright Yellow, of little power; not very permanent; washes very well.
- Zinc White.** Permanent; lacks somewhat in body.
- Zinc Yellow.** A delicate rich Yellow, quite permanent, a fair drier.
- Zinober Green, Ex. Light.** } Moderately permanent; warm artistic shades of Green, from the high-
Zinober Green, Light. } est light required in foliage to the most intense shadow. We
Zinober Green, Medium. } strongly advise their use by beginners.
Zinober Green, Deep. }

N. B.—Some of these fugitive colors are often supposed to be much more fleeting in ordinary daylight than is really the case. Thus, Finest Orient Carmine, Carmine No. 2, Crimson Lake, Gamboge, the Green Lakes, Indigo, Italian Pink, Olive Lake and Yellow Lake experience very little alteration, even after two or three years' exposure, and without any protection whatever from varnish.

Geranium Lake is the most fugitive oil color made, and fades quickly in an ordinary wall-light. The Mauves and Magenta become redder in hue and have a tendency to blacken; but do

OIL PAINTING—Continued.

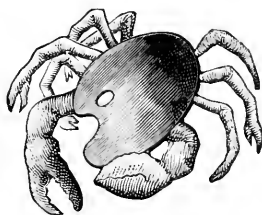
not fade rapidly. Purple Lake and Indian Lake also reddeu considerably; but otherwise stand tolerably well. Olive Green, Sap Green and Verdigris become much yellower. Violet Carmine turns quite black.

The above remarks apply, of course, only to the colors exposed *per se*. When, however, they are diluted with Zinc White, or White Lead, in the formation of tints, the changes are, as a rule, greatly accelerated.

The word "Permanence" is capable of such broad signification that it has seemed desirable to define with some exactitude what is meant in the following Classification Lists by the permanence of a color:

I. By the permanence of a Water Color we mean its durability when washed on Whatman paper and exposed freely, under a glass frame, for a series of years, to ordinary daylight; no special precautions (other than the usual pasting of the back of the frame) being taken to prevent the access of an ordinary town atmosphere. By an ordinary town atmosphere we signify an atmosphere containing normally, as the active change-producing constituents, oxygen, moisture, and a small percentage of carbonic acid, together with chronic traces of sulphur acids, spasmodic traces of sulphuretted hydrogen, and a certain amount of dust and organic matter in suspension.

II. By the permanence of an Oil Color we mean its durability when laid on ordinary prepared canvas and exposed freely, for a series of years, in an open room (as far as possible dust-proof) to ordinary daylight and the above-described town atmosphere. The action of the oil medium—sometimes reducing, sometimes oxidizing—has also in this case to be taken into consideration, and the white lead priming of the prepared canvas must likewise be regarded as having, in many instances, an important bearing on the result.



OIL PAINTING—Continued.

CANVAS.

This is the material generally used for painting upon; it is kept prepared in rolls of six yards of various widths, and is also strained on frames of any required size—see page 19. Next to the pigments he uses, there is nothing of more importance to the artist than the quality of canvas on which he paints.

ALOE'S "SUPERIOR PRIMED" CANVAS.

In rolls of six yards.

Of best English Linen.

This Canvas is superior to any American Canvas on the market. Every roll measures, for stretching purposes, about two inches more in width than is marked in this list.

		SMOOTH ROMAN OR SINGLE PRIMED.		TWILLED.	
		Per yard.	Per roll.	Per yard.	Per roll.
1028	27 inches wide.....	\$ 0 75	\$ 4 00	\$ 1 00	\$ 5 50
	30 " ".....	80	4 50	1 10	6 25
	36 " ".....	90	5 25	1 25	7 25
	42 " ".....	1 10	6 25	1 65	9 50
	45 " ".....	1 50	8 00	2 00	11 00
	54 " ".....	2 00	11 00	2 50	14 00
	62 " ".....	2 75	15 50	4 00	..
	74 " ".....	3 75	21 00	..	..
	84 " ".....	5 00	26 00	..	..
	96 " ".....	6 50	32 00	..	..
	120 " ".....	..	40 00	..	..
	144 " ".....	..	54 00	..	..

Smooth Canvas has a very delicate tooth and is the canvas most used by artists generally. It is seldom necessary for a retailer to carry any other canvas in stock.

Single Primed Canvas is prepared from the same linen as "*Smooth Canvas*," but presents a more decided tooth, owing to the manner in which it is finished.

Roman Canvas is a very artistic canvas, suitable for landscapes, figures or still life, where a broad style of painting is affected; the mesh is coarse.

Twilled Canvas is used almost exclusively for portrait and figure painting. It presents an appearance closely resembling diagonal cloth. This finish greatly assists the artist in his efforts to secure the proper texture for flesh. Samples furnished on application.

ALOE'S "SALON" CANVAS.

The best Canvas ever made on this or the other side of the water.

Compare it with Winsor and Newton's. We claim it is superior in every respect.

1029	27 inches wide, 6 yards to roll	Per roll, \$5 00	Per yard, \$0 85
	30 " " 6 " "	" 5 40	" 90
	36 " " 6 " "	" 6 25	" 1 10

This is one of our great specialties. We sell more of it than all other canvases combined. It is not necessary for the average dealer to carry any canvas in stock, except "*Salon*," 36 inches wide. Samples on application.

ALOE'S "HEAVILY PRIMED SMOOTH" CANVAS.

A fair Canvas at a moderate price.

1030	27 inches wide, 6 yards to roll	Per yard, \$0 60	Per roll, \$3 50
	30 " " 6 " "	" 65	" 3 75
	36 " " 6 " "	" 75	" 4 15
	42 " " 6 " " .....	..	..

Samples on application.

OIL PAINTING—Continued.**ALOE'S "JULIAN" CANVAS.**

Medium smooth surface.

The best Canvas for the money ever offered.

In rolls of six yards.

1031	36 inches wide	.....	Per yard, \$0 80	Per roll, \$4 75
	44 " "	.....	" 1 10	" 6 00

Samples on application.

ALOE'S "SECOND QUALITY TWILLED" CANVAS.

Well primed and of perfect texture.

1032	28 inches wide, 6 yards to roll	.....	Per roll, \$4 00	Per yard, \$0 70
	31 " " 6 " "	.....	" 4 50	" 80
	37 " " 6 " "	.....	" 4 85	" 85

Samples on application.

ALOE'S "SUPERIOR" SKETCHING CANVAS—PLAIN.

The best Sketching Canvas on the market. This is a Canvas that we feel justly proud of.

1033	28 inches wide, 6 yards to roll	.....	Per yard, \$0 55	Per roll, \$2 80
	31 " " 6 " "	.....	" 60	" 3 00
	37 " " 6 " "	.....	" 70	" 3 75

ALOE'S SKETCHING CANVAS—"ORDINARY."

1034	28 inches wide, 6 yards to roll	.....	Per yard, \$0 50	Per roll, \$2 60
	31 " " 6 " "	.....	" 55	" 2 85
	37 " " 6 " "	.....	" 65	" 3 50

ALOE'S "OUTING" CANVAS.

An artistic Sketching Canvas, with a good tooth.

1035	40 inches wide, 6 yards to roll	Per yard, \$0 60	Per roll, \$3 50
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ALOE'S "STUDIO" CANVAS.

An excellent Sketching Canvas.

1036	36 inches wide, 6 yards to roll	Per yard, \$0 55	Per roll, \$3 00
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WINSOR & NEWTON'S ARTISTS' PREPARED CANVAS.

First quality. In rolls of six yards.

		PLAIN OR ROMAN.		TWILLED.	
		Per yard.	Per roll.	Per yard.	Per roll.
1037	27 inches wide	\$ 1 10	\$ 6 00	\$ 1 45	\$ 7 70
	30 " "	1 20	6 60	1 60	8 25
	36 " "	1 45	7 75	1 80	9 70
	42 " "	1 70	9 20	2 00	10 60
	45 " "	2 10	11 20	2 60	13 70
	54 " "	2 75	14 25	3 20	16 60
	62 " "	4 00	19 50	4 75	23 40
	74 " "	4 75	23 40	5 25	27 30
	86 " "	5 75	29 25	6 50	33 80
	108 " "				65 00
	111-in }	Extra heavy; special prices on application.			
	126-in }				

OIL PAINTING—Continued.

PREPARED CANVAS.

Mounted on Hand-made Stretchers.

SIZES.	1039	1040	1041	1042	1043	1044	1045
	STRETCHERS ONLY.	PLAIN STUDIO.	ALOE'S	ENGLISH		WINSOR & NEWTON'S.	
			CELEBRATED "SALON" CANVAS.	PLAIN OR ROMAN	TWILLED	PLAIN OR ROMAN.	TWILLED.
6x8	\$ 15	20	\$ 30	\$ 25	\$ 35	\$ 35	\$ 45
8x10	15	25	35	30	40	40	50
8x12	15	25	35	30	40	40	50
9x12	15	25	35	30	40	40	50
10x12	15	30	40	35	45	45	55
10x14	15	30	40	35	50	45	60
12x14	18	35	50	45	55	55	65
12x15	18	35	50	45	55	60	70
12x16	20	35	50	45	55	60	70
12x17	20	40	55	50	60	60	75
12x18	20	40	55	50	65	60	75
12x20	20	45	60	55	70	80	1 10
12x22	20	45	60	60	75	80	1 10
12x24	20	50	60	65	80	80	1 10
14x17	20	40	60	55	70	65	90
14x18	20	45	70	55	75	65	90
11x20	20	45	70	55	80	70	95
15x18	20	45	70	55	75	70	95
16x20	20	50	75	65	85	80	1 10
16x22	20	55	75	70	85	80	1 10
16x24	20	55	80	70	90	85	1 15
17x21	20	55	80	70	90	90	1 15
18x22	25	65	90	80	1 00	1 00	1 25
18x24	25	65	90	80	1 00	1 00	1 25
18x30	30	80	1 10	1 00	1 25	1 25	1 65
18x32	30	80	1 20	1 05	1 30	1 35	1 70
20x24	25	70	1 00	90	1 10	1 10	1 40
20x30	30	80	1 10	1 00	1 25	1 25	1 65
20x36	35	90	1 30	1 20	1 50	1 40	1 90
22x27	30	75	1 10	1 00	1 25	1 25	1 65
22x30	30	85	1 25	1 05	1 30	1 35	1 70
22x36	35	95	1 40	1 25	1 60	1 50	2 00
24x32	40	1 05	1 40	1 35	1 75	1 55	2 10
24x36	40	1 10	1 50	1 40	1 75	1 75	2 50
24x42	45	1 25	1 80	1 65	2 15	2 00	2 75
25x30	30	90	1 25	1 10	1 50	1 40	1 90
27x34	40	1 05	1 50	1 40	1 80	1 65	2 20
27x36	40	1 15	1 65	1 50	1 90	1 75	2 50
28x40	45	1 30	1 85	1 75	2 25	2 10	2 85
29x36	40	1 15	1 65	1 50	2 00	1 75	2 50
30x40	50	1 30	1 95	1 80	2 40	2 25	3 15
30x42	50	1 35	2 10	1 90	2 50	2 40	3 25
30x45	50	1 40	2 25	2 00	2 60	2 50	3 25
30x50	50	1 50	2 45	2 25	2 75	2 70	3 50
36x42	55	1 55	2 40	2 25	2 75	2 60	3 50
40x50	65	1 95	3 15	3 00	3 75	3 50	4 50
40x60	75	2 65	3 70	3 50	4 25	4 50	5 50

All other regular sizes of Canvases furnished at proportionate prices. Bars and Cross-Bars extra.

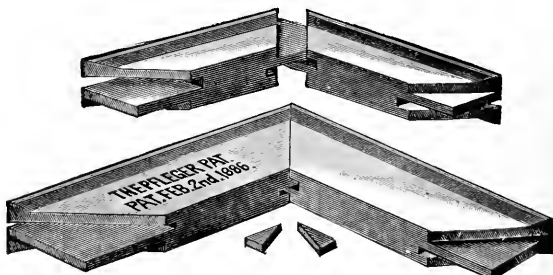
Oval Stretchers three times the price of Square Stretchers. This difference to be added to Canvases on Oval Stretchers.

Odd Stretchers made to order at a small advance.

Aloe's "Salon" Canvas is the best Canvas ever made.

OIL PAINTING—Continued.

THE PFLEGER PATENT STRETCHER.



(PATENTED FEB. 2, 1876.)

A. S. ALOE-COMPANY, AGENTS.

It is the best Stretcher ever put upon the market, and, at the prices we quote, also the cheapest. It is double-tongued, therefore very strong and not liable to warp out of shape in straining. The bead at the back keeps the canvas perfectly clear of the wood on the inner edge. It is also reversible and interchangeable, so that it would be impossible to select from a thousand pieces two which would not go together readily and form a perfect miter. The only difference in the pieces is their length, and by keeping a few assorted lengths in stock artists or dealers can put their own Stretchers together at a moment's notice.

For a small stock the most desirable lengths are 8, 10, 12, 14, 16, 17, 18, 20, 21, 24, 27, 30 and 36 inches.

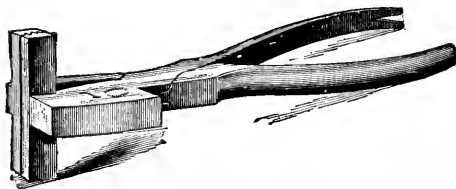
PRICES.

1046	Lengths from 6 to 36 inches, including Keys.....	Per 100,	\$ 4 00
1047	" " 37 to 48 " " "	"	10 00

HOW TO MOUNT A CANVAS.

Lay your canvas on a table, with the coated surface down; place your stretcher on this and cut canvas so as to expose one inch on each side and both ends; grasp the exposed canvas on the *sides*, and stand the stretcher on one side, while you drive a tack well home in the *middle* of the upper side. Turn the upper side down and draw canvas taught; drive second tack exactly opposite first tack on the other side. Now stand stretcher on one *end*, and draw canvas until wrinkles nearest you disappear, and drive third tack in the center of that end. Then stand stretcher on *the other end* and draw canvas taught; secure with fourth tack in center of that end. Now draw canvas and drive tacks to the right and the left of each tack already placed, and so on, until the corners are reached. Lap canvas at corners and trim with knife.

CANVAS PLIERS.



1048	Jaws $2\frac{5}{8}$ inches broad, best made.....	Each,	\$1 75
1049	" $2\frac{5}{8}$ " " second quality.....	"	1 25

This tool is used in mounting canvas on stretchers. Much better results can be obtained with it than by hand, and to a dealer it is almost indispensable.

OIL PAINTING—Continued.

SHATTUCK'S PATENT STRETCHER KEYS.



A simple construction for joining Stretchers.

1050	No. 0	Per dozen, \$0 25	Per gross (3 doz. sets), \$2 20
	" 1	" 30	" " 2 85
	" 2	" 40	" " 3 80
	" 3	" 50	" " 5 04
	" 4	" 60	" " 6 72
	Cross-Bar Keys	" 25	Per gross 2 52

The dealer, by having strips, miter-box and saw, can readily make stretcher frames of any dimension.

The "Keys" are put up in convenient packages, with screws to match.

1051 Tacks for mounting canvas per lb., 25c.

ALOE'S ACADEMY BOARDS.

Superior to any in the market. Smooth and stippled surface. Our reputation on this board is too firmly established to call for special comment.

1052	6x9	Each, \$0 05	Per doz., \$0 40	18 ¹ / ₂ x24 ¹ / ₂	Each, \$0 25	Per doz., \$3 00
	9x12	" 10	" 80	22 x27	" 50	" 5 00
	12x18	" 15	" 1 60	23 x30	" 60	" 6 00

Academy Boards are millboards prepared in the same manner as Canvas, and adapted to the same uses. It is the material on which most of the studies made at the European art institutions are made, and are much used for sketching in oil colors from nature. Everything depends upon the quality of the board used, and this is one of our great specialties.

ALOE'S OIL SKETCHING PAPER.

Smooth or rough surface.

1053	15x20	Each, \$0 10	Per doz., \$1 00	30x40	Each, \$0 30	Per doz., \$3 00
	20x30	" 15	" 1 75			

An extremely serviceable material for young artists. It is made of Drawing Paper, covered with three thin coats of oil color, so as to furnish a ground similar to Canvas. It is cheap and portable.

ALOE'S SUPERIOR OIL SKETCHING BLOCKS.

These Blocks are made of Oil Sketching Paper, firmly pressed and fastened on the edges to form a solid block. By drawing a knife around the edges, the first leaf can be taken off, thus leaving the remainder smooth and clean.

1054	5x7	Each, \$0 50
	6x9	70
	7x10	80
	9x12	1 40
	10x14	1 60

ALOE'S "SALON" CANVAS OIL SKETCHING BLOCKS.

These Blocks are made of Canvas, firmly pressed and fastened on the edges to form a solid block. By drawing a knife around the edges the first leaf can be taken off, thus leaving the remainder smooth and clean.

remainder smooth and clean.			Plain Block.	Bound Block.		Plain Block.	Bound Block.	
1055	7x10	..... Each,	\$1 30	\$1 75	12x18	..... Each,	\$3 50	\$4 25
	8x12	..... "	2 25	2 75	14x20	..... "	4 50	5 75
	10x14	..... "	2 65	3 25				

OIL PAINTING—Continued.



No. 1056.

CANVAS PINS.

1056	Each	.....	\$0 05
	Dozen	.....	0 40

Wooden center with steel pins projecting on each side, to place between canvases for carrying wet sketches.

RUSSELL'S PREPARED ARTISTS' CANVAS BOARDS.

For Oil Painting.

		Each.	Per doz.			Each.	Per doz.
1057	4x 6 inches.....	\$0 07	\$0 75		10x16 inches.....	\$0 35	\$3 25
	4x 8 ".....	10	1 00		10x18 ".....	35	3 50
	6x 8 ".....	15	1 25		10x20 ".....	40	3 75
	5x10 ".....	15	1 50		12x14 ".....	35	3 25
	6x10 ".....	15	1 50		12x16 ".....	35	3 50
	6x12 ".....	18	1 75		12x18 ".....	40	4 00
	7x 9 ".....	15	1 50		12x20 ".....	45	4 50
	7x11 ".....	18	1 75		12x22 ".....	50	4 75
	7x14 ".....	22	2 25		12x24 ".....	50	5 00
	7x15 ".....	25	2 50		14x16 ".....	45	4 00
	8x10 ".....	20	2 00		14x18 ".....	45	4 50
	8x12 ".....	25	2 25		14x20 ".....	50	5 00
	8x14 ".....	25	2 50		14x22 ".....	55	5 50
	8x16 ".....	30	2 75		14x24 ".....	60	6 00
	9x11 ".....	25	2 50		16x20 ".....	60	6 00
	9x12 ".....	30	2 75		16x22 ".....	65	6 50
	9x13 ".....	30	2 75		16x24 ".....	70	7 00
	9x15 ".....	30	3 00		18x22 ".....	75	7 50
	9x18 ".....	35	3 25		18x24 ".....	80	8 00
	10x12 ".....	30	2 75		20x24 ".....	85	9 50
	10x14 ".....	30	3 00				

Boards covered with Cloth and prepared as Canvas. Suitable for small pictures; much more expensive than Academy Boards, and too near the cost of Canvas on Stretchers to be very desirable.

BLACK POLISHED PANELS.

Ebonized Wood.

For Decoration in Oil Colors.

	Each.		Each.
1058 5x10 inches.....	\$0 40	9x18 inches.....	\$0 65
6x10 ".....	40	10x20 ".....	90
5x12 ".....	40	10x24 ".....	1 00
6x12 ".....	48	11x22 ".....	1 10
6x14 ".....	48	12x20 ".....	1 20
6x16 ".....	50	12x24 ".....	1 40
6x18 ".....	55	12x28 ".....	2 10
7x14 ".....	50	14x20 ".....	1 40
7x15 ".....	50	14x24 ".....	1 60
8x12 ".....	50	14x29 ".....	2 50
8x14 ".....	55	15x22 ".....	2 10
8x16 ".....	60	16x20 ".....	1 80
8x18 ".....	65	13x32 ".....	2 50
8x20 ".....	65	18x24 ".....	2 50

These Panels present a beautiful polished black surface, are perfectly finished and do not require framing. They are suitable for flowers, birds and game; in fact, anything that does not require a background. We carry a full line of studies suitable for Black Polished Panels.

OIL PAINTING—Continued.

OAK OR MAPLE-WOOD PANELS.

Plain and Finely Polished.

For Decoration in Oil Colors.

		Plain, Each.	Polished, Each.			Plain, Each.	Polished, Each.
1059	6x12 inches	\$0 25	\$0 50		8x20 inches	\$0 45	\$0 85
	6x14 "	30	55		10x20 "	60	1 00
	7x15 "	30	60		12x20 "	70	1 20
	8x16 "	35	65		12x24 "	80	1 40
	8x18 "	40	75		14x24 "	90	1 60

Other sizes made to order at a small advance.

There is nothing more suitable for game, fruit or fish.

MAHOCANY, WALNUT, ASH, CHESTNUT AND BIRD'S-EYE
MAPLE-WOOD PANELS.

Made to order at a proportionate advance.

JAPANNED TIN PANELS.

For Decoration in Oil Colors.

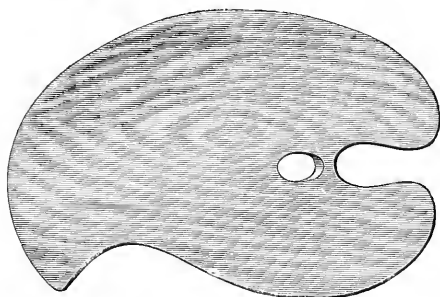
		Each.	Per doz.			Each.	Per doz.
1060	4 x 8 inches.....	\$0 13	\$1 50		8x16 inches	\$0 40	\$4 50
	4½ x 9 "	15	1 75		9x18 "	48	5 50
	5 x10 "	15	1 75		10x14 " lighter weight	20	2 00
	5 x12 "	20	2 25		12x17 " " "	35	4 00
	6 x12 "	22	2 50		14x20 " " "	45	5 00
	7 x14 "	25	3 00		18x24 " " "	65	7 75

THIN.

		Each.	Per doz.
1061	10x14 inches	\$0 15	\$1 25

An inexpensive substitute for "Black Polished Wood Panels."

LARGE BALANCE PALETTE.



15½x23 Inches. French Polished.

The "Studio" Palette, balanced, back cross veneered at thumb hole, shellac finish, 23x16 inches.

		Each.
1062	Mahogany, Polished	\$2 00
1063	" Oiled.	1 50

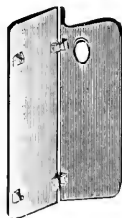
OIL PAINTING—Continued.

WOODEN PALETTES.

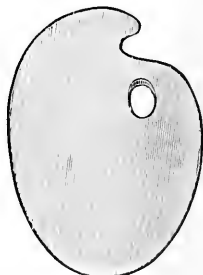
For Oil Painting.



Square.



Folding



Oval.

Mahogany, Maple or Walnut.

	Square.	OILED.				POLISHED.			
		Each.	Per doz.	Each.	Per doz.	Each.	Per doz.	Each.	Per doz.
1064	5 $\frac{1}{2}$ x 9, to fit Tin Box No. 00	\$0 18	\$2 00	\$0 40	\$4 50				
1065	6 $\frac{1}{2}$ x12 $\frac{1}{2}$, " " " 0	22	2 60	50	5 50				
1066	9 x13, " " " 1, 1 $\frac{1}{2}$, 1 $\frac{3}{4}$, 2, 2 $\frac{1}{2}$, 2 $\frac{3}{4}$ and 3	25	3 00	55	6 50				
1067	9 x13, folding	65	7 80	1 25	15 00				
	Square or Oval inches long,	10	11	12	13	14	15	16	
1069	Oiled Each,	\$ 0 18	20	22	25	30	35	40	
1070	" Per doz.,	2 00	2 25	2 60	3 00	3 60	4 00	4 40	
1071	Polished Each,	40	45	50	55	60	65	75	
1072	" Per doz.,	4 50	5 00	5 50	6 50	7 00	7 75	8 50	

Measure the longest way.

NOTE.—The Oblong Palette is the more convenient and generally used, as it affords the greater space for the working of tints, as well as for their advantageous arrangement. The 9x13 Palette is the popular size, and the one the retailer should carry, as it fits the majority of boxes.

ALOE'S PERFECT TIN PALETTE CUPS.



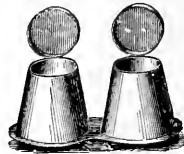
No. 1.



No. 2.



No. 3.



No. 4.

			Each.	Per doz.
1073	No. 1.	Single, without cover	\$0 05	\$0 50
1074	No. 1.	" " " japanned	07	60
1075	No. 3.	" with cover	10	1 00
1076	No. 3.	" " " japanned	12	1 20
1077	No. 5.	" screw cover	15	1 50
1078	No. 2.	Double, without cover	10	1 00
1079	No. 2.	" " " japanned	12	1 20
1080	No. 4.	" with cover	15	1 75
1081	No. 4.	" " " japanned	20	2 00
1082	No. 6.	" screw cover	25	3 00

The screws of Nos. 5 and 6 have Cork Fittings; when filled can safely be carried in the pocket. Very convenient for out-door sketching.

OIL PAINTING—Continued.

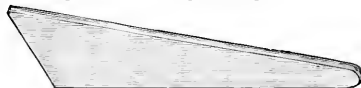
IMPROVED TIN PALETTE CUPS.



1083 Price Each, \$0 20 Per doz., \$1 80

NOTE.—The *Palette Cup* is made so that it can be attached to the palette; it serves to contain oil, varnish or other vehicle used. The small dealer will find it necessary to carry only the No. 1 Japanned Cup.

STEEL PALETTE KNIVES.



No. 1.



No. 2.

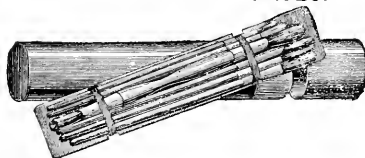


No. 3.

			3 in.	3½ in.	4 in.	4½ in.	5 in.	6 in.	7 in.
1084	No. 3. Cocoa or Ebony Handles ..	Each,	\$ 0 20	25	25	30	35	.....	.....
		Per doz.,	2 40	2 75	3 00	3 50	4 00	.....	.....
1085	No. 2. Trowel Shape	Each,	40	40	45	50	60	.....	.....
		Per doz.,	4 50	4 50	5 60	5 50	6 50	.....	.....
1086	No. 1. Horn Knives	Each,			10	15	15	20	25
		Per doz.,			1 20	1 80	1 80	2 00	2 50
1087	Pocket Knife, horn handle	Each,							\$ 1 00
1088	Ivory Knives, 5 inches, super.								50

NOTE.—The *Palette Knife* is the implement with which the colors are manipulated on the palette; that is to say, to mix tints and arrange them. It should be thin and flexible, tapering towards the end; the handle should be heavier than the blade. The small dealer should carry only the No. 3 knife, 3½-inch blade.

ALOE'S BRUSH CASES.



No. 1090.

1089	Small, for Water Color Brushes, 10 inches long ..	Each.	\$0 50
1090	Large, " Oil " " 12½ " "		60

OIL PAINTING—Continued.

BRUSH CLEANER.

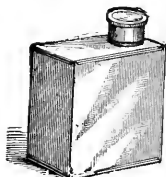
Japanned.



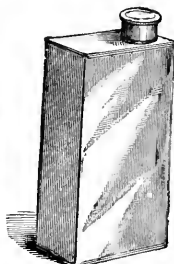
No. 1091.

	Each	Per doz.
1091 With Sieve and Lid	\$0 30	\$3 60

So arranged that the turpentine into which the brush is dipped is always clean, the sediment passing through the first compartment to the bottom of the case.



No. 1092.



No. 1093.

ALOE'S TIN CANS.

With metal screw tops.

	Each.	Per doz.
1092 Flat, for Sketching Boxes, with screw top.....	\$0 20	\$2 40
1093 Flat, for Sketching Boxes, with screw top, large.....	25	3 00

NOTE.—For carrying oils, varnishes, etc.

REST OR MAHL-STICKS.



	Each	Per doz
1094 Plain, whitewood.....	\$0 12	\$1 20
1095 Plain, black walnut.....	18	1 75
1096 Bamboo	25	2 40
1097 Polished walnut.....	25	2 40

1098 Polished rosewood imitation, two joints, Each.	Per doz.
brass.....	\$0 50
1099 Three joints.....	70
	8 40

The Rest or Mahl-Stick is used to rest or guide the right hand or arm when particular steadiness is required, as is the case in painting small objects and minute details. The lower end of the stick is held in the left hand, while the upper extremity rests on the canvas or some other convenient support.

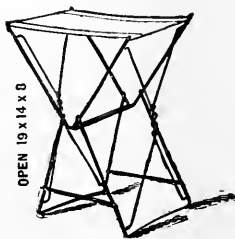
ALOE'S SKETCHING STOOLS AND CHAIRS.



No. 1.



No. 2.



OPEN 19 x 14 x 0

	No. 3.	Open Each.	Per doz.
1101 No. 1. 4 legs, square linen seat, with back		\$0 60	\$ 6 00
1102 " 2. 3 " Hickory, half-cane form		75	9 00
1103 " 3. Steel Folding Stool, japanned		1 50	18 00
1104 " 3. " " " " nickel plated.....		2 50	27 00

OIL PAINTING—Continued.

SKETCHING UMBRELLAS.

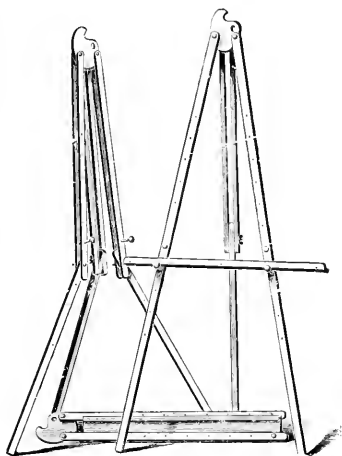


- | | |
|--|--------|
| | Each. |
| 1105 No. 1. Umbrella, covered with cream-colored water-proof umbrella gingham; lined with fast-colored black, thus casting no shade or color. The frame, best quality grooved paragon ribs. The lightest and strongest made, with jointed staff | \$4 50 |
| 1106 No. 2. Same as No. 1, not lined..... | 3 00 |

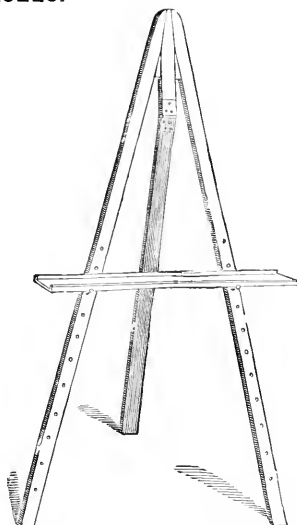
SKETCHING UMBRELLA STAFFS.

- | | |
|--|--------|
| | Each. |
| 1107 Cane, with attachment to hold any ordinary umbrella | \$1 25 |
| 1108 Cane, with attachment to hold any ordinary umbrella, jointed | 1 75 |
| 1109 Umbrella Staff, with revolving top, fitting to any ordinary umbrella, with two-jointed screw staff, light and strong | 2 00 |

ARTISTS' EASELS.



No. 1110. Aloe's Celebrated "Outing" Easel.



Nos. 1111 and 1112. Aloe's Six-Foot Closing Easel, with board and pins

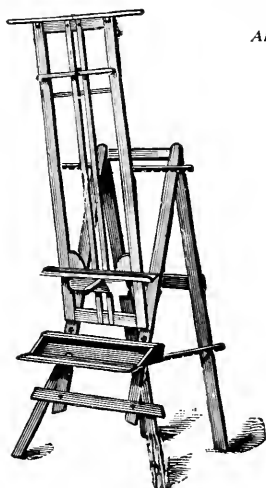
The "Outing" is the best all-round Easel ever put on the market, strong, light, durable, and very compact; can be readily adjusted to uneven ground and is serviceable for studio work as well as sketching; in short, it has no competitor in the field.

Aloe's Six-Foot Closing Easel is a well-made, strong Easel, suitable for art schools or the studio.

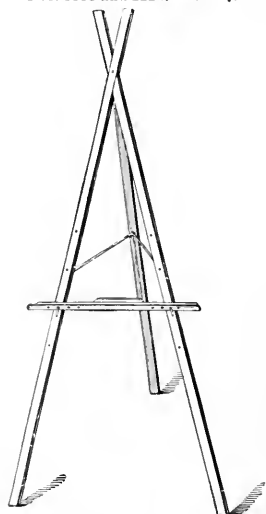
1110	Price, each, only.....	\$1 25	Per dozen	\$12 00
1111	" "	50	"	6 00
1112	" Stained Cherry or Walnut	80	"	9 00

OIL PAINTING—Continued.

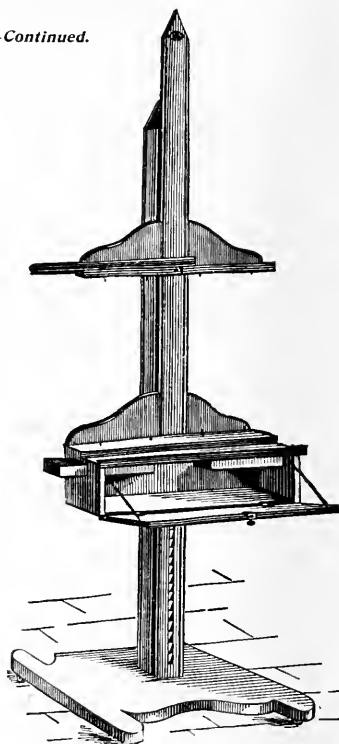
ARTISTS' EASELS—Continued.



Nos. 1113 and 1114. "Utility."



No. 1115. Aloe's "Perfect" Easel. compact.



No. 1115a. Studio Pole Easel.

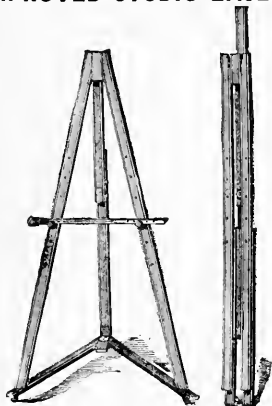
The "Utility" Easel will accommodate various sizes of stretched canvas. It has an auxiliary frame to hold the canvas, which can be adjusted to any angle, either to the rear, upright, or inclined to the front, so that the most desirable position can be obtained, according to the character of the work. The support for the canvas slides up and down without disturbing the outfit box. Should an unusual size of canvas be employed, extension arms are provided; should the stretcher be wider than the easel, the stretcher rests against these arms and is held in place with elastic bands with hooks and clutches. *The whole arrangement is very simple and useful*, and requires less room than any other easel for studio or sketching purposes. It is very useful in tapestry painting. Full instructions are printed on each part which has to be adjusted.

The "Perfect" is the most rigid Easel in the market, very

- | | | |
|--------------|--|-----------------------------|
| 1113 | "Utility," Pine, 6 feet 3 inches high; when auxiliary frame is removed (in packing), 4 feet 8 inches high..... | Each, \$ 8 00 |
| 1114 | "Utility," Cherry, 6 feet 3 inches high; when auxiliary frame is removed (in packing), 4 feet 8 inches high..... | " 12 00 |
| 1115 | Each..... | \$1 50 Per dozen..... 15 00 |
| 1115a | Studio Pole Easel, Black Walnut, extra finish, on casters, balanced. Height, 6 feet; can be raised 42 inches; has two brush drawers, material box and adjustable rest. Holds canvases from 6 inches to 4 feet 6 inches high..... | Each, 33 00 |

OIL PAINTING—Continued.

IMPROVED STUDIO EASEL.



[Patented May 28, 1889.]

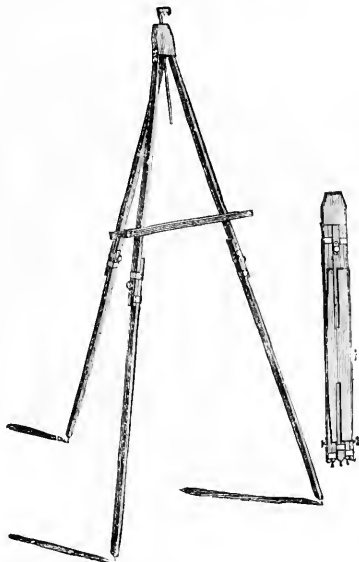
Simple, Convenient, Practical.

Made of pine, 6 feet high, and spreads $31\frac{1}{2}$ inches; platform 38 inches deep; when closed, occupies space of 7 feet by $5\frac{1}{2}$ inches wide, 4 inches deep.

By a simple and ingenious arrangement of the parts, the upright supports are attached to the platform by hinges and held firm and rigid by the tray, which is fastened with iron pins. When the pins are removed the easel can be closed up into a compact form of the dimensions given. The rear support is adjustable, and permits the easel to be placed perpendicular, or be projected backward at any angle. The platform is on casters.

	Each.
1116 Plain Pine.....	\$2 00
1117 Stained Ebony, or Cherry	3 50

SKETCHING EASELS.



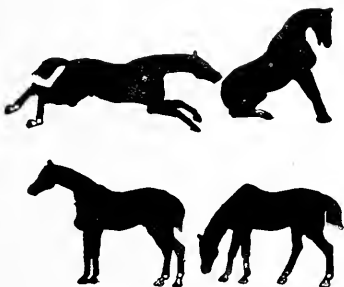
"Tourist."

[Patented.]

1118	Tourist, size A, sliding legs, Each. brass, double screws.....	\$3 00
1119	Tourist, size B, sliding legs, brass, double screws.....	2 50
1120	Tourist, size C, sliding legs, brass, double screws.....	2 00
1121	No. 9. Friction joints, sliding, compact.....	1 80
1122	No. 10. Folding, very light....	1 00

MOVABLE HORSE MODEL,
OR MANIKIN.

- 1123** Made of card-board, one-sixth of life size, in correct proportions. Every joint is movable and the Model can be placed in every possible natural position by turning the single joint where the eyelet holes are fixed. To prevent incorrect and unnatural positions of the hind legs a strap is fixed which is so placed that the angles formed by the three bones remain as equal as possible. The easy manipulation heightens the practical worth of the Model. It is only necessary to fasten it on the wall with two drawing pins to enable one to make every experiment..... \$0 75

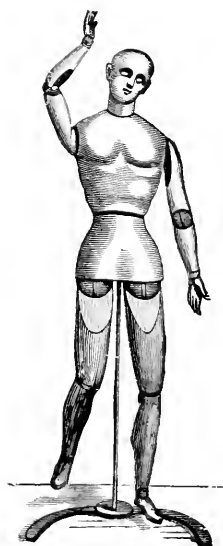


No. 1123.

Manikins or Lay Figures are to assist the artist where he cannot secure living models to paint from; or when his model is absent, and he does not want his work interrupted, he will adjust the drapery to his lay figure and proceed with his painting.

OIL PAINTING—Continued.

MANIKINS AND LAY FIGURES.



MANIKIN.

	Height.	With Stand.	Each
1124	6 inch, white wood		\$ 1 75
	9 " " "		2 00
	12 " " "		2 50
	18 " " "		3 75
	24 " " "		6 00
	30 " " "		9 00
	36 " " "		15 00
	42 " " "		25 00
	48 " " "		36 00
	54 " " "		42 00
	60 " " "		51 00

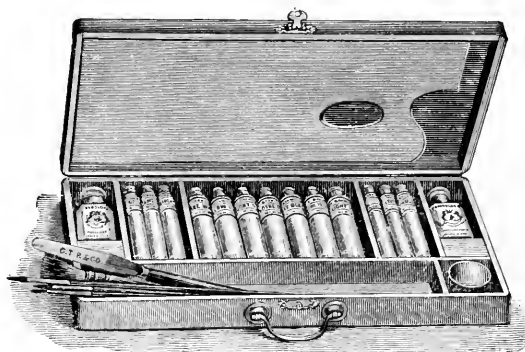
42 to 60 inch have Movable Fingers.

LAY FIGURES—MALE OR FEMALE.

	With Steel Joints.	Each.
1125	Natural size, extra, with wig, cotton covering.....	\$300 00
1126	" " " " " silk "	350 00
1127	" " ordinary, without wig, cotton covering	200 00
1128	" " " " " silk "	250 00

THE ACADEMY BOX.

Polished Wood.



THE ACADEMY BOX.

Size, 13 $\frac{1}{4}$ in. long; 6 $\frac{1}{2}$ in. wide, 1 $\frac{1}{2}$ in. deep; containing 13 double or large size tubes of F. W. Devoe and C. T. Reynolds Co.'s artists' oil colors; 1 bottle each of pale drying oil and spirits of turpentine; steel palette knife, palette and palette cup; badger blender; 1 sable and 2 bristle brushes; academy board, tracing and transfer paper.

	Price, complete	Each
1129	Price, complete	\$ 2 50
1130	" empty	60
1131	" complete, substituting Winsor & Newton's tubes for Devoe-Raynolds & Co.'s	2 95

OIL PAINTING—Continued.

THE BEGINNER'S BOX.

Polished Wood.



THE BEGINNER'S BOX.

Size, $9\frac{1}{2}$ in. long; 6 in. wide; $1\frac{3}{4}$ in. deep; containing 10 tubes of F. W. Devoe and C. T. Raynolds Co.'s artists' oil colors; 1 bottle each of pale drying oil and spirits of turpentine; steel palette knife, palette and palette cup; badger blender; 1 sable and two bristle brushes.

		Each.
1132	Price, complete.....	\$1 75
1133	“ “ without palette knife.....	1 50
1134	“ empty.....	50
1135	“ complete, substituting Winsor & Newton's tubes	2 10

THE AMATEUR BOX.

Japanned Tin.



THE AMATEUR BOX.

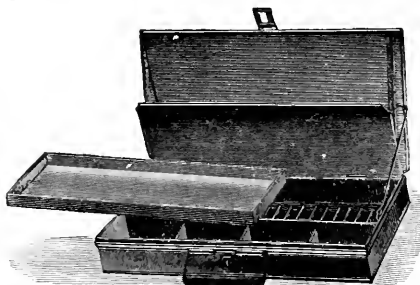
11 inches long; 6 inches wide; $1\frac{1}{2}$ inches deep; containing 12 tubes of F. W. Devoe and C. T. Raynolds & Co.'s artists' oil colors; 1 tin bottle each of pale drying oil and spirits of turpentine; steel palette knife, palette and palette cup; badger blender; 3 sable and 4 bristle brushes; charcoal and crayon holder.

		Each.	Per doz.
1136	Price, complete.....	\$3 00	\$36 00
1137	“ empty.....	1 00	10 00
1138	Complete, substituting Winsor & Newton's tubes for F. W. Devoe and C. T. Raynolds Co.'s'.....	Each,	3 50

OIL PAINTING—Continued.

JAPANNED TIN OIL SKETCHING BOXES.

Arranged to hold Tubes, Colors, Palette, Brushes, Oils, &c.



No. 0.

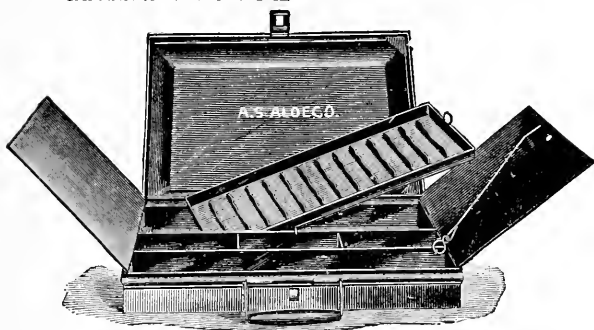
- 1139** No. 0. Improved; empty; size, $12\frac{3}{4} \times 6\frac{1}{2} \times 2\frac{1}{4}$ inches, fitted with patent receptacle for tubes; also extra tray for tubes, or brushes, and lid with spring, securely covering contents..... Each, \$ 1 25
Per dozen..... 15 00
- 1140** The same, containing 14 W. & N.'s colors, viz.: Flake White, Vandyke Brown, Light Red, Ivory Black, Chrome Yellow, Naples Yellow, Megilp, Vermilion, Permanent Blue, Crimson Lake, Burnt Sienna, Yellow Ochre, Raw Sienna and Prussian Blue; one each round red sable brushes, Nos. 1, 4, and 6; one each flat bristle brushes, Nos. 2, 6, and 10; No. 1 badger blender; $3\frac{1}{2}$ -inch; palette knife; 5-inch brass crayon holder; one bottle purified linseed oil; one bottle pale drying oil; one bottle spirits turpentine; charcoal; chalk; tin palette cup, and 12-inch mahogany palette; complete..... Each, 4 25
- 1141** Same, substituting F. W. Devoe and C. T. Reynolds Co.'s tubes for W. & N.'s. Each, 3 90

No. 1.—Flat Top No. $1\frac{1}{2}$.—Beveled Top.

- 1142** No. 1 or $1\frac{1}{2}$. Size, $13 \times 9 \times 3\frac{1}{4}$ inches, with raised cover and new receptacle for tubes, with lid for holding the colors in their places; empty..... Each, 1 25
Per dozen..... 15 00
- 1143** The same, containing 20 W. & N.'s colors, viz.: Flake White (double), Chrome Yellow, Naples Yellow, Yellow Ochre, Raw Sienna, Italian Pink, Orange Chrome, Light Red, Burnt Sienna, Vermilion, Megilp, Crimson Lake, Permanent Blue, Prussian Blue, Ivory Black, Bitumen, Vandyke Brown, Raw Umber, Terre Verte, Emerald Green; one bottle pale drying oil; one bottle picture mastic varnish; one each Nos. 2, 6 and 9 round red sable brushes; one each flat bristle brushes Nos. 1, 4, 6, 8 and 12; badger blender No. 5; $3\frac{1}{2}$ -inch palette knife; crayon holder (5-inch), charcoal; chalk; palette cup; mahogany palette..... Each, 5 50
- 1144** Same, substituting F. W. Devoe and C. T. Reynolds Co.'s tubes for W. & N.'s. Each, 5 00

OIL PAINTING—Continued.

JAPANNED TIN OIL SKETCHING BOXES—Continued.



No. 1 3/4

- 1145** No. 1 3/4. Empty; size, 13x9x2 1/2 inches, with raised top. Having extra tray for tubes. The inside flaps cover the entire contents of the box, thus preventing the displacement of any article.....Each, \$ 1 50
Per dozen..... 18 00
- 1146** Containing 20 W. & N.'s colors, viz.: Flake White (double), Chrome Yellow, Naples Yellow, Yellow Ochre, Raw Sienna, Italian Pink, Orange Chrome, Light Red, Burnt Sienna, Vermilion, Megilp, Crimson Lake, Permanent Blue, Prussian Blue, Ivory Black, Bitumen, Vandyke Brown, Raw Umber, Terre Verta, Emerald Green, one bottle pale drying oil; one bottle picture mastic varnish; one each Nos. 2, 6 and 9 round red sable brushes; one each flat bristle brushes Nos. 1, 4, 6, 8 and 12; badger blender No. 5; 3 1/2-inch palette knife, crayon holder (5-inch); charcoal; chalk; palette cup; mahogany palette; complete.....Each, 5 75
- 1147** Same, substituting F. W. Devoe and C. T. Reynolds Co.s' tubes for W. & N.'s. Each, 5 35

BOX FOR DOUBLE OR LARGE TUBES.

- 1148** No. 1 3/4. Size, 13x9x3 1/4 inches, raised cover, with cover over all; same as above; empty.....Each, 1 75
Per dozen..... 20 00

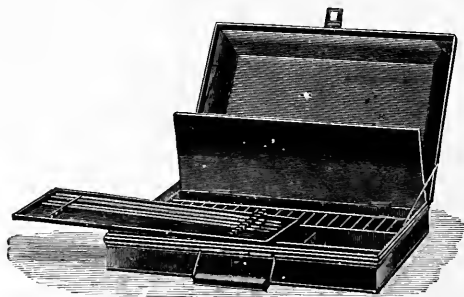


No. 2 1/2

- 1149** No. 2 1/2. Empty; size, 13 1/2x9 3/4x3 1/4 inches, with flat top and new receptacle for tubes, and inside lid securely holding tubes in their places. Double bottom, with slides for carrying wet sketches.....Each, 1 75
Per dozen..... 20 00

OIL PAINTING—Continued.

BOX FOR DOUBLE OR LARGE TUBES—Continued.



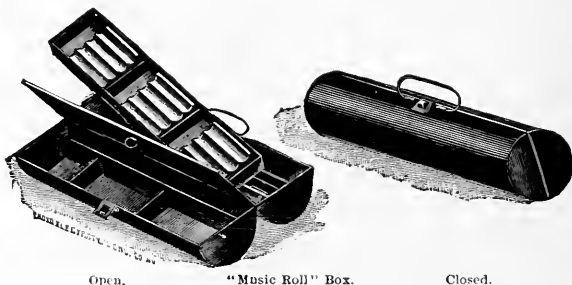
No. 1. "Eclipse."

[Patented.]

- 1152** No. 1. "Eclipse." Empty; size, $13 \times 9 \times 3\frac{1}{4}$ inches, with bevel top. This box will at once recommend itself to all artists by its completeness and the utility of its improvements. It is provided with an extra tray for tubes. The whole is kept intact by a lid, which, when closed, is firmly secured by a spring. In addition to the usual space for brushes, an extra tray is provided for wet brushes. This tray is also secured by a spring, so that when the box is closed, no matter in what position it is carried, the contents cannot be displaced from their proper position.
- | | |
|----------------|---------|
| Each..... | \$ 1 75 |
| Per dozen..... | 22 00 |

No. 2. "Eclipse."

- 1153** No. 2. "Eclipse." Empty; size, $13\frac{1}{2} \times 9\frac{3}{4} \times 3\frac{1}{4}$ inches, with flat top. Made same as above, with the addition of a double bottom with slides for holding wet sketches..... Each, 2 50
- | | |
|----------------|-------|
| Per dozen..... | 27 00 |
|----------------|-------|



Open.

"Music Roll" Box.

Closed.

[Patented.]

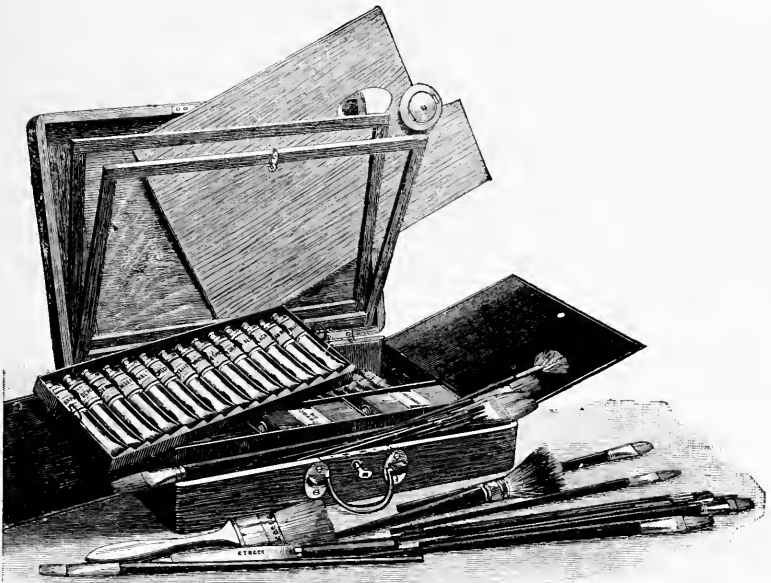
The most compact and complete Oil Color Box ever made. Fitted with a double tray, containing spaces for twenty-one 4-inch tubes, with lid to hold colors firmly in their places; also spaces for brushes, palette knife, palette cups, and oil bottles. The space over the brushes and oil bottles accommodates a folding palette. Size of box, when closed, 13 inches long and only 3 inches in diameter, resembling a lady's music roll.

	Each.	Per doz.
1154 Empty.....	\$1 75	\$17 00
1155 Oiled Folding Mahogany Palettes, to fit above box	70	8 00
1156 Tin Oil Bottles, to fit above box	20	2 40
1157 Tin Palette Cups, to fit above box	05	60

OIL PAINTING—Continued.

“CABINET.”

With Frames for Protecting Sketches and Palette.



(Patent applied for.)

Antique Oak or Mahogany, Highly Polished. $14 \times 9\frac{7}{8} \times 3\frac{1}{2}$ Inches Deep.

	Each.
1158 Antique Oak, empty.....	\$ 7 50
1159 Mahogany, “.....	7 50

Cabinets Fitted.

1160 Antique Oak or Mahogany, complete, containing 43 F. W. Devoe and C. T. Raynolds Co.s' double or large size tubes of artists' oil colors, 18 bristle brushes, 24 sable brushes, badger blender, bristle varnish brush, pale drying and poppy oils and genuine mastic varnish in tin bottles, steel and ivory palette knives, 1 double palette cup with screw cover, polished palette, mill board, three-jointed mahl-stick, porte crayon, charcoal and hand-book on oil painting.....	25 00
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“CABINET.”

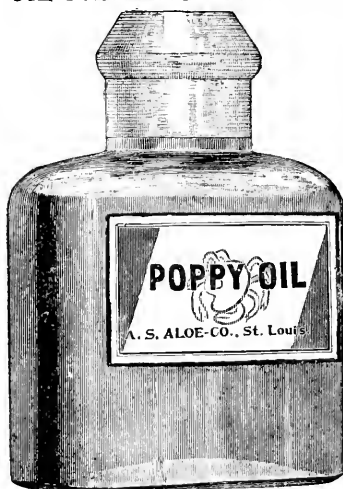
Without Frames for Protecting Sketches and Palette.

	Each.
1161 Antique Oak.....	\$ 5 50
1162 Mahogany.....	5 50

Cabinets Fitted

1163 Antique Oak or Mahogany, complete, containing 43 F. W. Devoe and C. T. Raynolds' double or large size tubes of artists' oil colors, 15 bristle brushes, 18 sable brushes, bristle varnish brush, badger blender, poppy and pale drying oils, genuine mastic varnish in tin bottles, steel and ivory palette knives, double palette cup with screw cover, polished palette, mill board, porte crayon and charcoal, two-jointed mahl-stick, and two hand-books on oil painting.....	20 00
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OIL PAINTING—Continued.



Two Ounce.

A. S. ALOE-CO.'S SUPERIOR OILS, VARNISHES AND MEDIUMS.

	1 Ounce Bottles.		2 Ounce Bottles	
	Each	Per doz.	Each.	Per doz.
1164 Linseed Oil, Purified, a medium.....	\$ 0 10	1 00	\$ 0 15	1 50
1165 Poppy Oil, a medium.....	15	1 20	20	1 80
1166 Nut Oil, a medium.....	15	1 20	20	1 80
1167 Pale Drying Oil, a medium.....	15	1 20	20	1 80
1168 Strong Drying Oil, a medium.....	10	1 00	15	1 50
1169 Siccatis Courtray, a medium and drier.....	15	1 50	25	2 75
1170 Siccatis de Harlem, a medium and drier.....	20	2 00	30	3 50
1171 Turpentine, Purified, a medium, for thinning.....	10	1 00	15	1 50
1172 Genuine Mastic Varnish, for oil paintings.....	25	2 40	50	4 80
1173 Picture Mastic Varnish, for oil paintings.....	20	2 00	35	3 60
1174 Picture Copal Varnish, for oil paintings.....	15	1 25	25	2 40
1175 Picture Varnish.....	15	1 25	25	2 40
1176 Map Varnish, for varnishing maps.....	15	1 25	25	2 40
1177 Amber Varnish, a high finish.....	20	1 75	25	2 75
1178 Retouching Varnish, a working and finishing varnish.....	20	1 75	30	3 00
1179 Picture Damar Varnish, for pictures.....	15	1 25	25	2 40
1180 Grecian Varnish, of great transparency.....	15	1 25	25	2 40
1181 White Spirit Varnish, a delicate light varnish.....	20	1 75	25	2 75
1182 Chromo Varnish, for varnishing chromos.....	20	1 75	25	2 75
1183 Autumn Leaf Varnish, for varnishing leaves.....	20	1 75	25	2 75
1184 Japan Gold Size.....	20	1 25	25	2 25
1185 Alcohol.....	15	1 25	25	2 25
1186 Gum Water, a medium and sizing.....	10	1 00	20	1 80
1187 Gold Paint Liquid, for applying bronzes.....	10	1 00	15	1 50
1188 White Shellac, a sizing for wood, etc.....	.....	.....	25	2 40
1189 Mixing Medium, for painting on plush.....	.....	.....	30	3 00
1190 Satin Liquid, for painting on silk, satin, etc.....	.....	.....	30	3 00
1191 Adhesive Preparation, for mounting photographs on glass.....	15	1 25	25	2 00
1192 Diaphanous Liquid, for making photographs transparent.....	15	1 25	20	2 00
1193 "Amber Gloss," for enameling pottery ware painted in oil colors, without firing.....	.....	.....	35	3 50
1194 Fixatif, for fixing crayon drawings.....	.....	.....	20	2 40
1195 "Restorene," for restoring and preserving oil paintings, 16-ounce bottles.....	35	.....	.....	.....
1196 Stamp Plate Varnish, per bottle.....	25	.....	.....	.....

OIL PAINTING—Continued.

OILS IN BULK.

	Pint cans.	Quart cans.	Per gallon.
1197 Linseed Oil	\$ 0 35	\$ 0 60	\$ 1 75
1198 Poppy Oil	50	80	3 00
1199 Pale Drying Oil	50	80	3 00
1200 Turpentine, Rectified	30	50	1 50
1201 Gold Paint Liquid	75	1 00	3 50

Our Oils, Varnishes and Mediums are the highest grade to be obtained, and we do not hesitate to pronounce them superior to any domestic line, and in many instances they excel the imported article.



No. 1201.



No. 1202.



No. 1203.

	Each.	Per doz.
1202 Siccatisf de Courtray; square; 2-ounce bottle.....	\$ 0 25	\$ 2 75
1203 Siccatisf de Harlem; round; 2-ounce bottle.....	50	5 40
1204 Soehnee's Retouching Varnish, No. 3, for oil paintings.....	25	3 00

WINSOR & NEWTON'S OILS AND VARNISHES.

In Round 2-Ounce Bottles.

	Each.	Per doz.		Each.	Per doz.
1205 Linseed Oil.....	\$ 0 20	\$ 2 40	1209 Strong Drying Oil.....	\$ 0 25	\$ 2 75
1206 Nut Oil	25	2 75	1210 Mastic Varnish, strong	1 15	13 00
1207 Poppy Oil	25	2 75	1211 Picture Mastic Varnish	90	10 50
1208 Pale Drying Oil	25	2 75	1212 Picture Copal	50	5 40

NOTES.—Of the fixed oils "*Linseed*" is in most common use. It should be rich in color, transparent and limpid, and when used in moderately warm weather, it should dry in a day. The most valuable qualities of Linseed Oil as a vehicle consist in its great strength and flexibility. It is by far the strongest oil, and the one which dries best and firmest under proper management. Our Linseed Oil is darker in color than most oils on the market, but is much purer and safer to use.

"*Poppy Oil*" is next in importance. It is inferior in strength, tenacity and drying to Linseed Oil, but it has the reputation of keeping its color better, and it is on this account generally employed in grinding white and most of the light pigments.

"*Nut Oil*" is more uncertain in its qualities than either Linseed or Poppy, and is frequently extremely long in drying. Our Nut Oil, however, affords little cause for complaint on this score.

"*Drying Oil*" is prepared by boiling Linseed Oil with certain oxides and salts of lead, which impart to it a power of drying with rapidity.

"*Japan Gold Size*" is the quickest drier known, but we rather discourage its use.

"*Siccatisf Courtray*," as prepared by us, is one of the best driers in existence and may be safely used.

"*Retouching Varnish*" is of great service where painting of several days' standing has "dried in;" a thin coat of Retouching Varnish will bring out all the details so that the artist may proceed with his work intelligently. *It is the only varnish that should ever be applied to a finished picture under two years.*

"*Mastic Varnish*" should never be applied to a picture until it is at least two years old, and then it is the best varnish known for the purpose.

OIL PAINTING—Continued.

Brushes.

To paint with effect it is of the first consequence to have the brushes well selected and of the best quality that can be procured. Those most generally used in oil painting are Bristle Brushes, Red Sable Brushes (or Russian Sable, sometimes called "Fitch" or "Siberian," where one cannot afford the genuine Red Sable) and Badger Blenders.

Bristle Brushes are preferred for general work, as they give a certain crispness of touch. They should be strongly and nicely made, and in selecting them be careful that the hair has not been cut at the ends, for this is sometimes done with inferior brushes; but such brushes have an unpleasant and coarse touch, laying on the color in a scratchy manner. No glue should show in the ferrule. They should be soft to the touch, but perfectly elastic. It may be remarked here as an important principle that a beginner should paint with as large a brush as his subject will admit of.

Sable Brushes. The observations regarding Bristle Brushes apply as well to Sable Brushes; but these latter should have the additional property of coming to a fine, yet firm, point.

Be careful that the hair shows its natural end or "bloom," which is an evidence that the brush has not been trimmed with shears.

Badger Blenders are also known by the significant names of "Softeners" and "Sweeteners." The hair, instead of coming to a point, diverges or spreads out somewhat, after the manner of a dusting brush. The hair should be long, clean, dark, with light ends.

The chief use of the "Blender" is to soften and blend broad tints, such as skies, water, distances, foregrounds and the like. While it is acknowledged to be a very valuable assistant to the young painter, it must be used with great forbearance and caution, as it is apt to destroy form and details and produce "woolliness."

CLEANING BRUSHES.

Our greatest friend is the artist who does not clean his brushes, and his name is legion. With proper care a brush may be made to last almost indefinitely; by neglect it may become worthless for a second using.

Directions.—Dip the brush in raw Linseed Oil, then wash with toilet soap and water until clean. Dry the brush with a clean rag and shape the point with the fingers.

ALOE'S "MOTH BALLS."

For the preservation of brushes.....Per package, \$0 10

WINSOR & NEWTON'S "RED HANDLE" BRISTLE BRUSHES.

Extra Superfine.

	Nos.	7.	8.	9.	10.	11.	12.
1213	Each	\$0 18	\$0 20	\$0 22	\$0 30	\$0 32	\$0 35
	Per dozen	2 00	2 25	2 60	3 00	3 25	3 75
	Assorted, Nos. 1 to 6			Each, \$0 15	Per doz., 1 40		

WINSOR & NEWTON'S ARTISTS' BRISTLE BRUSHES—"SUPER."

Extra fine quality, in tin, yellow polished handles, round and flat.

		Each.	Per doz.
1214	Nos. 1 to 6, assorted	\$0 25	\$3 00
	" 7	30	3 60
	" 8	38	1 50
	" 9	45	5 10
	" 10	50	6 00
	" 11	60	7 20
	" 12	70	8 40

OIL PAINTING—Continued.

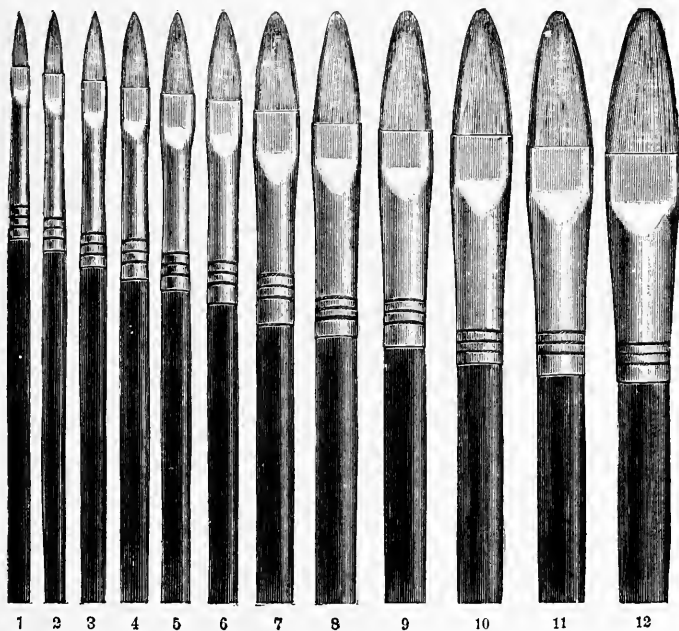
OIL COLOR BRUSHES.

“SUPERFINE FRENCH” ARTIST BRISTLE BRUSHES—Extra—Extra.

Soft, Silky and Very Flexible. A Perfect Brush.

Recommended by all the best Artists in America and Abroad.

Imported only by A. S. Aloe-Company.



Made from the Finest Bleached Bristles. Flat, White Handles, Tin Ferrules.

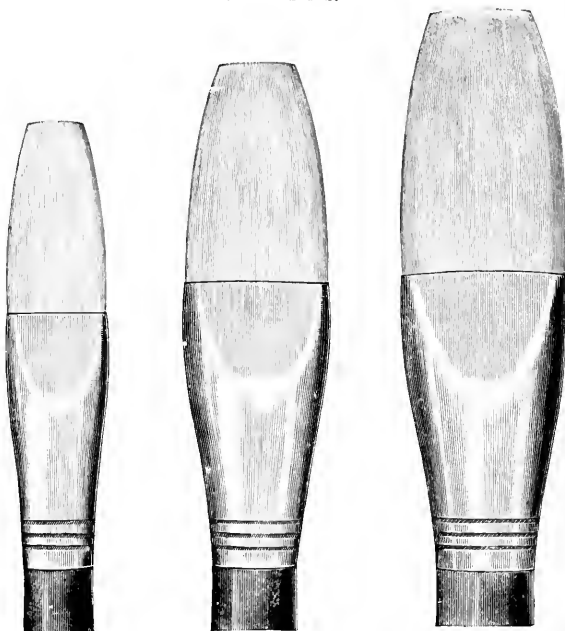
		Each.	Per doz.	Per gross.			Each.	Per. doz.	Per gross.
1215	No. 1	\$0 05	\$0 45	\$5 40	No. 7.....		\$0 08	\$0 80	\$ 9 50
	" 2	05	50	6 00	" 8		08	90	10 25
	" 3	05	60	6 75	" 9		08	95	10 75
	" 4	07	65	7 50	" 10		10	1 00	11 40
	" 5	07	70	8 00	" 11		10	1 05	12 00
	" 6	07	75	8 75	" 12		10	1 10	12 75
Assorted, Nos. 1 to 12							80	9 00	

The above is the only Bristle Brush a small dealer should carry in stock.

OIL PAINTING—Continued.

“SUPERFINE FRENCH” ARTIST BRISTLE BRUSHES—Extra—Extra.

EXTRA SIZES.



No. 15.

No. 18.

No. 21.

Extra Super. Flat, White Handles.

		Each.	Per doz.
1216	No. 13	\$0 12	\$1 25
	" 14	12	1 35
	" 15	15	1 50
	" 16	15	1 75
	" 17	18	1 80
	" 18	18	2 00
	" 20	20	2 40
	" 22	25	3 00
	" 21	30	3 50

ALOE'S BRISTLE POONAH BRUSHES.

For Stenciling Patterns.

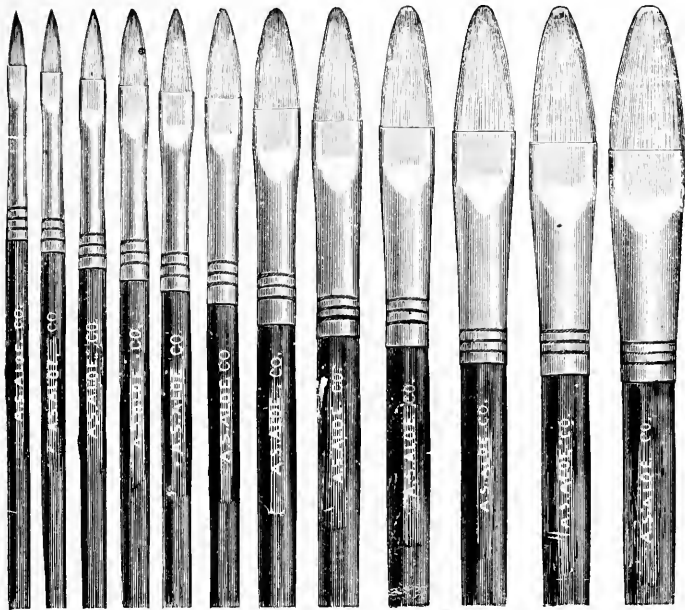
A round, short brush, flat at the end; also used for tinting lace and for tapestry painting

		Each.	Per doz.
1217	No. 1	\$0 05	\$0 60
	" 2	05	60
	" 3	06	70
	" 4	06	70
	" 5	08	85
	" 6	08	90
Assorted, Nos. 1 to 6		Per doz., \$0 70	Per gross, 7 75

OIL PAINTING—Continued.

ALOE'S "SPECIAL" BRISTLE ARTISTS' BRUSHES.

For Oil Painting.



Nos. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.

No. 1218. Flat. Polished Cedar Handles.

Made of Finest Bleached Bristles. A full weight of stock.

		Each.	Per doz.	Per gross.			Each. Per doz. Per gross.
1218	No. 1	\$0 05	\$0 45	\$5 40	No. 7	\$0 08	\$0 80 \$ 9 50
	" 2	05	50	6 00	" 8	08	90 10 25
	" 3	06	50	6 00	" 9	09	95 10 75
	" 4	06	65	6 60	" 10	09	1 00 11 40
	" 5	07	70	7 75	" 11	10	1 05 12 00
	" 6	07	75	8 75	" 12	10	1 10 12 75
Assorted, Nos. 1 to 12						80	9 00

ALOE'S "SPECIAL" EXTRA SIZES FLAT ARTISTS' BRISTLE BRUSHES.

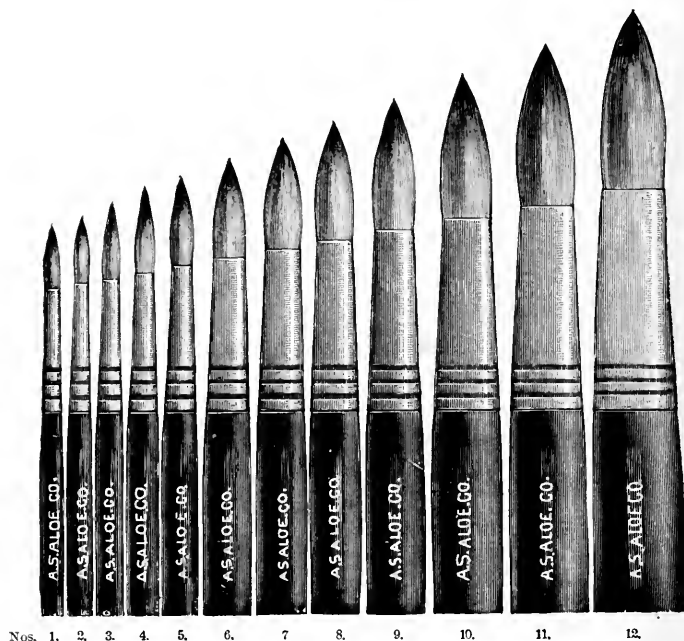
In Tin, Polished Handles.

		Nos. 14.	15.	18.	21.	22.	24.
1219	Each	\$0 12	\$0 15	\$0 18	\$0 22	\$0 25	\$0 30
	Per dozen	1 30	1 60	1 90	2 20	3 00	3 50

OIL PAINTING—Continued.

ALOE'S "SPECIAL" BRISTLE ARTISTS' BRUSHES.

For Oil Painting.



Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.

No. 1220. Round. Polished Handles.

Made of Selected Bristles. Full Stock.

		Each.	Per doz.	Per gross.			Each.	Per doz.	Per gross.
1220	No. 1	\$0 05	\$0 45	\$5 40	No. 7		\$0 08	\$0 80	\$ 9 50
	" 2	05	50	6 00	" 8		08	80	10 25
	" 3	06	50	6 00	" 9		09	80	10 75
	" 4	06	65	6 60	" 10		09	90	11 40
	" 5	07	70	7 75	" 11		10	90	12 00
	" 6	07	75	8 75	" 12		10	90	12 75
	Assorted, Nos. 1 to 12							80	9 00

ALOE'S "SPECIAL" EXTRA SIZES ROUND ARTISTS' BRISTLE BRUSHES.

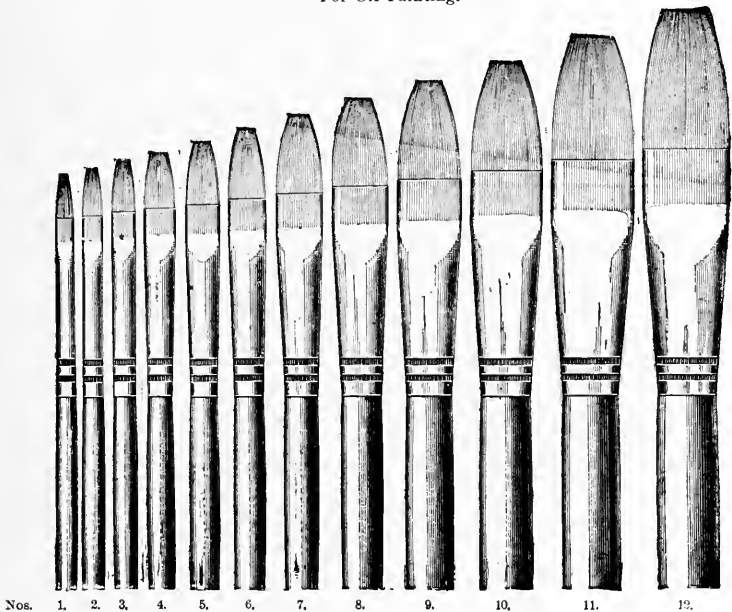
In Tin, Polished Handles.

		Nos. 14.	16.	18.	20.	22.	24.
1221	Each	\$0 12	\$0 15	\$0 18	\$0 22	\$0 25	\$0 30
	Per dozen	1 30	1 60	1 90	2 20	3 00	3 50

OIL PAINTING—Continued.

ALOE'S IMPORTED "FRENCH" SUPER SUPER BRIGHT'S BRISTLE ARTISTS' BRUSHES.

For Oil Painting.



No. 1222. Flat. White Handles.

A "Bright's" Brush is a *Thin Flat Brush*.

		Each.	Per doz.	Per gross.			Each.	Per doz.	Per gross.
1222	No. 1.....	\$0 05	\$0 45	\$5 40	No. 7.....	\$0 08	\$0 80	\$ 9 50	
	" 2.....	05	50	6 00	" 8.....	08	90	10 25	
	" 3.....	05	60	6 75	" 9.....	08	95	10 75	
	" 4.....	07	65	7 50	" 10.....	10	1 00	11 40	
	" 5.....	07	70	8 00	" 11.....	10	1 05	12 00	
	" 6.....	07	75	8 75	" 12.....	10	1 10	12 75	
	Assorted, Nos. 1 to 12.....						80	9 00	

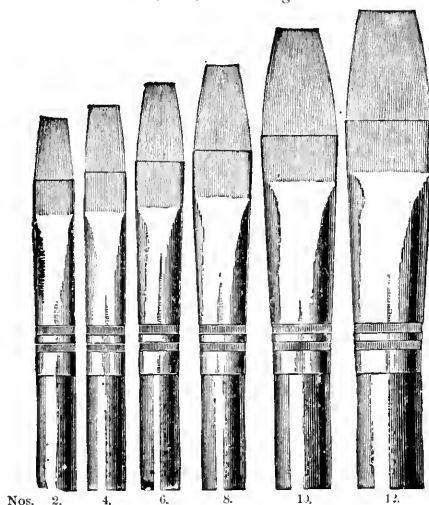
EXTRA SIZES.

		Each.	Per doz.			Each.	Per doz.
1223	No. 13.....	\$0 12	\$1 25	No. 18.....	\$0 18	\$2 00	
	“ 14.....	12	1 35	“ 20.....	20	2 40	
	“ 15.....	15	1 50	“ 22.....	25	3 00	
	“ 16.....	15	1 75	“ 24.....	30	3 50	
	“ 17.....	18	1 80				

OIL PAINTING—Continued.

ALOE'S "IMPERIAL" BRICHT'S BRISTLE ARTISTS' BRUSHES.

For Oil Painting.



No. 1224. Flat. Black Polished Handles.

Selected Stock.

Perfect in Finish.

	Each.	Per doz.	Per gross.
1224 No. 1.	\$0 06	\$0 50	\$6 00
" 2.	06	55	6 50
" 3.	06	60	6 75
" 4.	07	60	7 00
" 5.	07	65	7 75
" 6.	07	75	8 75

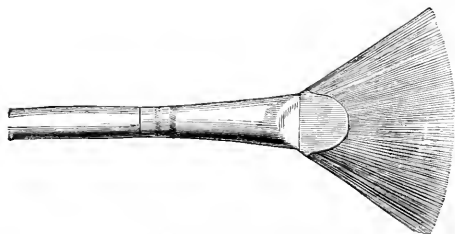
	Each.	Per doz.	Per gross.
No. 7.	\$0 03	\$0 90	\$10 25
" 8.	08	90	10 75
" 9.	08	1 00	11 00
" 10.	10	1 05	11 50
" 11.	10	1 05	12 00
" 12.	10	1 10	12 75

Assorted, Nos. 1 to 12..... 75 9 00

EXTRA SIZES.

	Each.	Per doz.
1225 No. 14. $\frac{5}{8}$ -inch wide.....	\$0 18	\$1 50
" 16. $\frac{3}{4}$ " "	20	1 80
" 18. $1\frac{1}{8}$ " "	22	2 10

	Each.	Per doz.
No. 20. $\frac{7}{8}$ -inch wide.....	\$0 25	\$2 40
" 22. $1\frac{1}{8}$ " "	30	2 70
" 24. $1\frac{1}{2}$ " "	35	3 00



No. 1226. Polished Handles.

ALOE'S BRISTLE ARTISTS' BRUSHES—Fan-Shaped.

For Oil Painting.

Suitable for blending and for feather strokes; also used in painting hair, foliage, etc.

	Each.	Per doz.
1226 No. 1.	\$0 10	\$1 10
" 2.	12	1 20
" 3.	14	1 40

OIL PAINTING—Continued.

ALOE'S "PARIS" BRISTLE ARTISTS' BRUSHES.

Thick Bright's. For Oil Painting.



No. 1227. Flat. Polished Handles.

This Brush contains more stock than the ordinary "Bright's." There is nothing so dear to the artist as a "well-worn brush." The "Paris" has been constructed to resemble a carefully-used brush as much as possible.

		Each.	Per doz.	Per gross.			Each.	Per doz.	Per gross.
1227	No. 1	\$0 06	\$0 60	\$6 80	No. 7	\$0 10	\$1 00	\$ 9 00	
	" 2	06	60	7 00	" 8	10	1 00	9 30	
	" 3	06	60	7 50	" 9	10	1 00	10 00	
	" 4	08	80	7 75	" 10	12	1 20	11 00	
	" 5	08	80	8 00	" 11	12	1 20	11 50	
	" 6	08	80	8 40	" 12	12	1 20	12 00	
Assorted, Nos. 1 to 12							1 00	9 00	

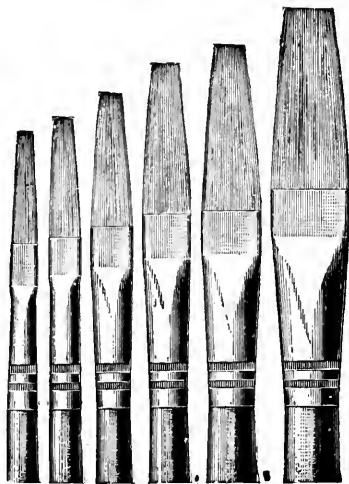
EXTRA LARGE SIZES.

		Each.	Per doz.			Each.	Per doz.
1228	$\frac{3}{4}$ -inch	\$0 15	\$1 50	$1\frac{1}{8}$ -inch	\$0 24	\$2 50	
	$\frac{7}{8}$ "	18	1 75	$1\frac{1}{4}$ "	27	2 75	
	1 "	20	2 00	$1\frac{1}{2}$ "	30	3 00	

OIL PAINTING—Continued.

ALOE'S EXTRA SUPER BRISTLE "LANDSEER" BRUSHES.

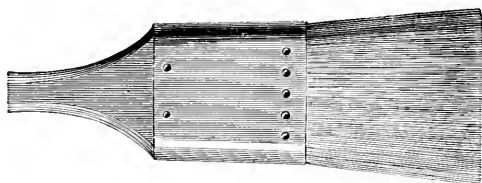
Suitable for painting hair, foliage, grasses, etc.



No. 1229. Polished Handles, Flat, Long Bristles, and Extra Thin.

		Each.	Per doz.
1229	No. 1.....	\$0 06	\$0 55
	" 2.....	06	65
	" 3.....	08	75
	" 4.....	08	90
	" 5.....	10	1 00
	" 6.....	10	1 10

ALOE'S FLAT BRISTLE VARNISH BRUSHES.



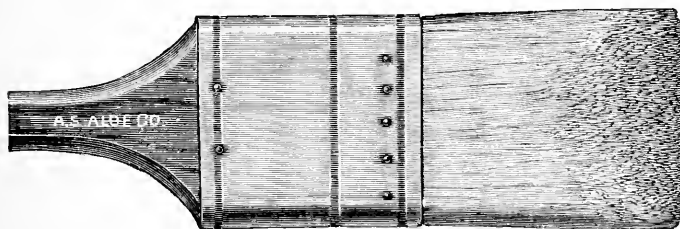
No. 1230. In Tin, Cedar Handles.

		Each.	Per doz.
1230	1-inch.....	\$0 10	\$1 20
	1½ ".....	15	1 80
	2 ".....	20	2 40
	2½ ".....	30	3 60
	3 ".....	40	4 80
	3½ ".....	45	5 40
	4 ".....	50	6 00

OIL PAINTING—Continued.

ALOE'S FLAT BRISTLE VARNISH BRUSHES—Extra, Extra.

Chiseled.



No. 1231.

	Each.	Per doz.		Each.	Per doz.
1231 1-inch.....	\$0 25	\$3 00	3-inch.....	\$0 75	\$ 9 00
1½ ".....	35	4 00	3½ ".....	1 00	12 00
2 ".....	50	6 00	4 ".....	1 50	18 00
2½ ".....	60	7 00			

ALOE'S FLAT CAMEL HAIR VARNISH BRUSHES.

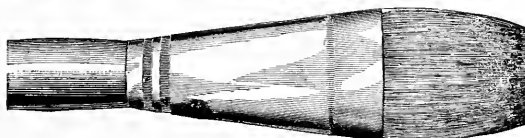
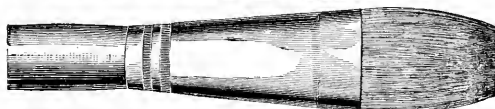
Best Quality.



No. 1232. In Tin, Cedar Handles.

	Each.	Per doz.		Each.	Per doz.
1232 ½-inch.....	\$0 20	\$1 95	2½-inch.....	\$0 65	\$ 7 20
¾ ".....	25	2 60	3 ".....	80	8 65
1 ".....	30	3 35	3½ ".....	95	10 10
1¼ ".....	35	4 00	4 ".....	1 10	11 50
1½ ".....	45	4 65	4½ ".....	1 30	12 00
2 ".....	55	6 00	5 ".....	1 40	13 50

ALOE'S CAMEL HAIR LACQUERING BRUSHES.



No. 1233.

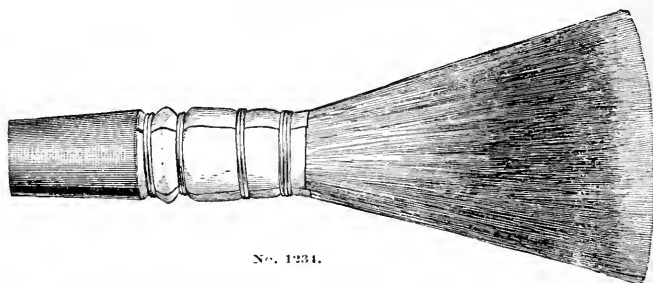
	Each.	Per doz.		Each.	Per doz.
1233 ⅜-inch.....	\$0 10	\$1 00	¾-inch.....	\$0 15	\$1 50
½ ".....	12	1 25	7/8 ".....	20	2 00
5/8 ".....	15	1 50	1 ".....	25	2 50

OIL PAINTING—Continued.

ALOE'S BADGER HAIR "BLENDEBS"—Genuine.

Full Size.

NOTE.—The best brush in the market.



No. 1234.

Used for blending skies, foregrounds, flesh, etc. One of the most serviceable brushes made. The retailer should carry Nos. 1 to 4, inclusive.

		Each.	Per doz.			Each.	Per doz.
1234	No. 1	\$0 15	\$1 80	No. 7	\$0 50	\$5 50	
	" 2	20	2 00	" 8	60	6 50	
	" 3	30	3 00	" 9	70	7 50	
	" 4	35	3 50	" 10	80	8 50	
	" 5	35	4 00	" 11	90	9 50	
	" 6	40	4 50	" 12	1 00	11 00	

ALOE'S EXTRA FINE FAN-SHAPED RED SABLE BRUSHES.

For Oil Painting.

For Light Glazing, Scumbling, Softening, Foliage, Hair, etc.



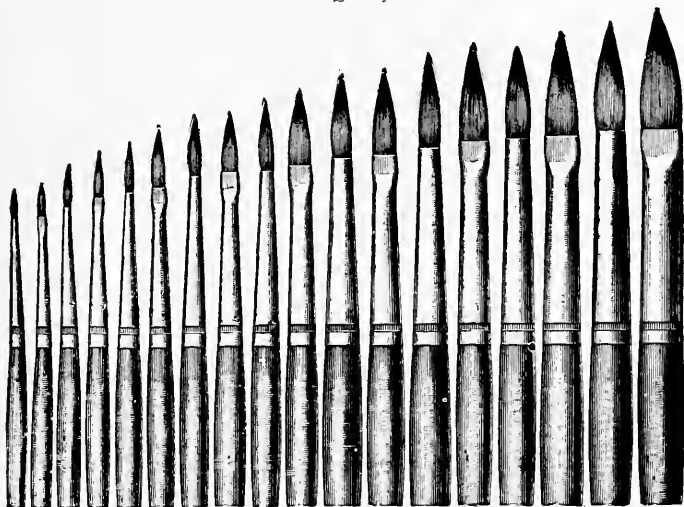
Polished Handles. Nickel Ferrules.

		Each.	Per doz.
1235	No. 1.....	\$0 25	\$3 00
	" 2.....	35	4 20
	" 3.....	50	6 00

OIL PAINTING—Continued.

ALOE'S CELEBRATED RED SABLE ARTISTS' BRUSHES—Genuine.

First Quality.



No. 1236. In Albata Ferrules, Polished Handles, Round or Flat, Full Size.

This Brush is one of our great specialties; full stock; perfectly made; each Brush carries the "bloom." There is nothing more difficult to obtain than a *good* Red Sable Artists' Brush.

	Each.	Per doz.	Per gross.		Each.	Per doz.	Per gross.
1236 No. 1.....	\$0 06	\$0 65	\$ 7 80	No. 7.....	\$0 14	\$1 40	\$16 80
" 2.....	07	70	8 40	" 8.....	16	1 60	19 20
" 3.....	08	80	9 60	" 9.....	18	1 80	21 60
" 4.....	09	90	10 80	" 10.....	20	2 10	25 20
" 5.....	10	1 00	12 00	" 11.....	22	2 40	28 80
" 6.....	12	1 20	14 40	" 12.....	24	2 90	34 80
Nos. 1 to 6, assorted.....						1 20	12 00
" 1 to 12, ".....						1 75	19 00

EXTRA SIZES.

	Each.	Per doz.		Each.	Per doz.
1237 No. 14.....	\$0 40	\$4 50	No. 18.....	\$0 60	\$6 50
" 16.....	50	5 50	" 20.....	70	7 75

ALOE'S ALASKA ARTISTS' RED SABLE BRUSHES.

(Imitation Red Sable.)

We do not believe in this Brush, and simply carry it because our competitors do.

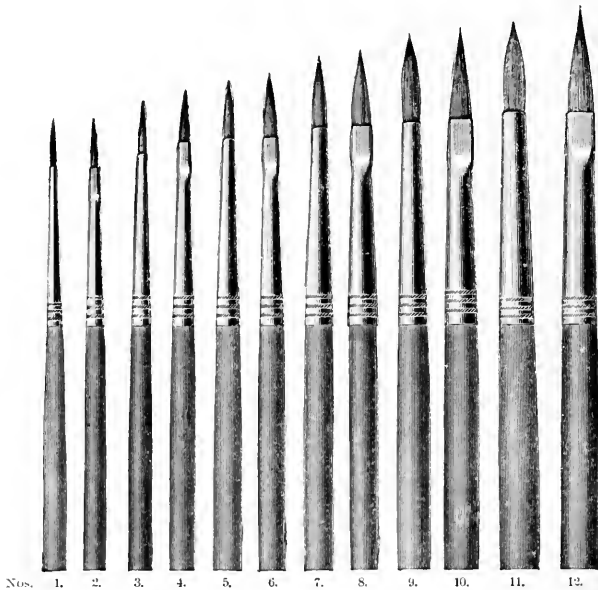
Sizes and Styles same as No. 1236. Round or Flat.

	Each.	Per doz.	Per gross.		Each.	Per doz.	Per gross.
1238 No. 1.....	\$0 05	\$0 50	\$6 00	No. 7.....	\$0 11	\$1 10	\$13 20
" 2.....	06	60	7 20	" 8.....	12	1 20	14 40
" 3.....	07	70	8 40	" 9.....	14	1 40	16 80
" 4.....	08	80	9 60	" 10.....	16	1 60	19 00
" 5.....	09	90	10 80	" 11.....	18	1 80	21 60
" 6.....	10	1 00	12 00	" 12.....	20	2 00	24 00

OIL PAINTING—Continued.

ALOE'S ARTISTS' RED SABLE WRITERS OR "RICCERS"—Genuine.

For Oil Painting.—Fine Lines.



No. 1239. Polished Handles, Nickel-Plated Ferrules.

This Brush is suitable for painting fine lines, small limbs of trees, grasses, etc., etc. A very serviceable Brush, but one the small dealer should not carry.

	Each.	Per doz.	Per gross.		Each.	Per doz.	Per gross.
1239 No. 1	0 07	\$0 70	\$ 8 40	No. 7	\$0 18	\$1 80	\$21 60
" 2	08	80	9 60	" 8	21	2 15	25 80
" 3	09	90	10 80	" 9	24	2 40	28 80
" 4	10	1 00	12 00	" 10	27	2 70	32 40
" 5	12	1 20	14 40	" 11	31	3 30	39 60
" 6	15	1 50	18 00	" 12	35	3 75	45 00
Assorted, Nos. 1 to 12						2 00	23 00

EXTRA SIZES.

	Each.	Per doz.		Each.	Per doz.
No. 14	\$0 60	\$6 00	No. 18	\$1 10	\$11 00
" 16	80	8 00	" 20	1 60	16 00

		Each.	Per doz.			Each.	Per doz.
1241	No. 10.....	\$0 35	\$4 20	No. 16.....	\$0 75	\$ 9 00	
	“ 12.....	40	4 80	“ 18.....	90	10 80	
	“ 14.....	50	6 00	“ 20.....	1 25	15 00	

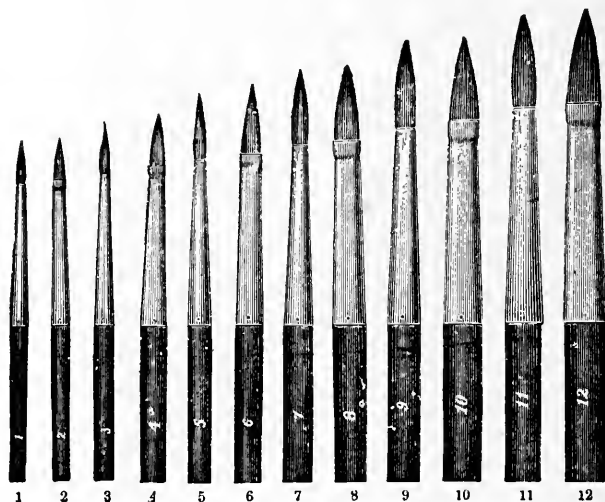
OIL PAINTING—Continued.

ALOE'S SUPERIOR ARTISTS' RUSSIAN SABLE BRUSHES.

Also called "Fitch Hair," and sometimes "Siberian Hair," or "Black Sable."

Round or Flat.

This Brush is a good substitute for "Genuine Red Sable Artists' Brushes" No. 1236, where a cheaper Brush is desired, and is much better, in our opinion, than the "Imitation Red Sable" No. 1238.



Polished Handles. Nickel Ferrules.

		Each.	Per doz.	Per gross.			Each.	Per doz.	Per gross.
1242	No. 1.....	\$0 05	\$0 55	\$ 6 60	No. 7.....	\$0 10	\$1 00	\$11 25	
	" 2.....	05	60	7 20	" 8.....	10	1 10	11 75	
	" 3.....	06	70	8 35	" 9.....	10	1 15	12 50	
	" 4.....	08	70	8 40	" 10.....	12	1 20	13 25	
	" 5.....	08	85	9 75	" 11.....	12	1 25	13 75	
	" 6.....	08	85	10 20	" 12.....	12	1 30	14 50	
	Nos. 1 to 6, assorted						75	8 70	
	" 1 to 12, "						1 10	10 50	

OIL PAINTING—Continued.

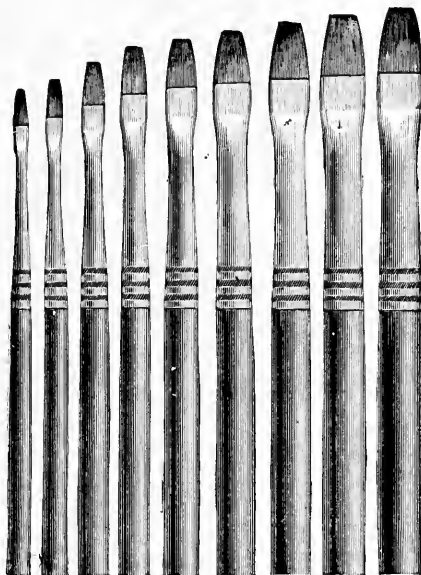
ALOE'S "SUPER" RUSSIAN SABLE ARTISTS' BRUSHES—
"BRIGHT'S"—Extra.

Sometimes called "Fitch Hair," or "Siberian," or "Black Sable."

First Quality.

In Nickel Ferrules, Polished Handles, Extra Fine. Flat. Full Size.

This Brush is a good substitute for "Genuine Red Sable Bright's" No. 1240, where a cheaper Brush is desired.



Nos. 1. 2. 3. 4. 5. 6. 7. 8. 9.

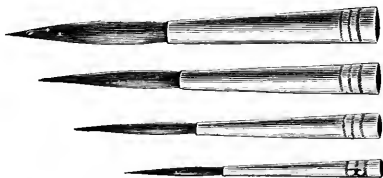
		Each.	Per doz.	Per gross.			Each.	Per doz.	Per gross.
1243	No. 1.....	\$0 06	\$0 65	\$ 7 80	No. 6.....	\$0 12	\$1 25	\$15 00	
	" 2.....	07	75	9 00	" 7.....	14	1 50	16 80	
	" 3.....	08	85	10 00	" 8.....	16	1 75	18 50	
	" 4.....	09	95	10 90	" 9.....	18	2 00	20 00	
	" 5.....	10	1 10	11 75					
	Assorted, Nos. 1 to 9.....						1 25	13 40	

EXTRA SIZES.

		Each.	Per doz.			Each.	Per doz.
1244	No. 10. $\frac{5}{16}$ -inch.....	\$0 20	\$2 35	No. 16. $\frac{5}{16}$ -inch.....	\$0 40	\$3 75	
	" 12. $\frac{3}{8}$ ".....	25	2 85	" 18. $\frac{3}{4}$ ".....	50	4 50	
	" 14. $\frac{1}{2}$ ".....	30	3 00	" 20. $\frac{7}{8}$ ".....	60	6 75	

OIL PAINTING—Continued.

ALOE'S RED SABLE LETTERING PENCILS—Super, Super.

Hair 1 to 1 $\frac{3}{4}$ inches long. Nickel-Plated Ferrules.

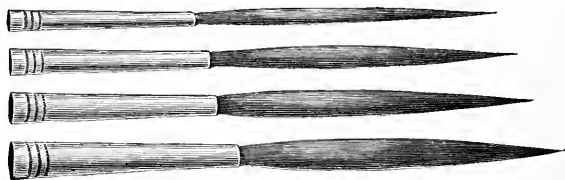
		Each.	Per doz.			Each.	Per doz.
1245	No. 1.....	\$0 10	\$1 10		No. 5.....	\$0 30	\$3 60
	" 2.....	15	1 50		" 6.....	35	4 35
	" 3.....	20	2 15		" 7.....	50	5 20
	" 4.....	25	2 85		" 8.....	60	7 35
	Assorted, 1 to 8.....						3 25

This is the best Brush money can buy. It is one of our great specialties.

ALOE'S BLACK SABLE LETTERING PENCILS—Super, Super.

1245a. Same Prices, Styles and Sizes as above.

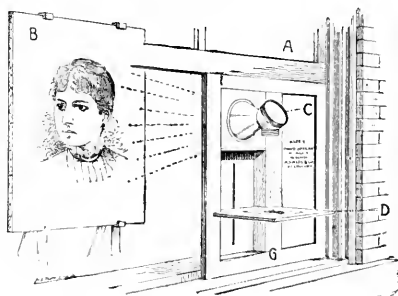
ALOE'S BLACK SABLE STRIPING PENCILS—Super, Super.

Hair 1 $\frac{3}{4}$ to 2 $\frac{1}{2}$ inches long. Nickel-Plated Ferrules.

		Each.	Per doz.			Each.	Per doz.
1246	No. 1.....	\$0 15	\$1 50		No. 5.....	\$0 35	\$4 20
	" 2.....	20	2 10		" 6.....	45	5 10
	" 3.....	25	2 70		" 7.....	55	6 30
	" 4.....	30	3 30		" 8.....	70	8 10
	Assorted, 1 to 8.....						4 00

OIL PAINTING—Continued.

ALOE'S PHOTO-OPTICAN.



Simple, Inexpensive and Practical.

WITH this wonderful instrument a child can make a perfect portrait, landscape or intricate drawing without the use of a negative. The cost of the instrument is absolutely the only expense to which the artist, draughtsman or designer is put, as no artificial light, chemicals or negatives are required.

Remember if the Photo-Optican does not do all that we claim for it the *purchaser may return it and money will be refunded.*

A bunch of flowers placed in the instrument can be thrown upon your paper, canvas or anything upon which it is your desire to draw or paint; the flowers *will appear in their natural colors*, each delicate shade perfectly portrayed. Should there chauce to be a dew-drop on petal or leaf it will sparkle in the picture in all its original brilliancy. By a simple adjustment the picture may be enlarged many times the size of the original, or reduced in like manner at will.

A photograph, tintype, wood-cut, drawing, colored picture or study may be reproduced twenty times the size of the original, or, in fact, almost any size from one inch to twelve feet, *and the picture is not reversed.*

The works of a watch placed in the instrument can be reproduced almost any size, the reproduction showing the sheen of the silver, gold and different metals used in its construction. The wheels will appear in motion in the enlargement.

A Crayon Artist cannot afford to be without one, as it does away with the cost of solar prints, guides or negatives, and insures a much more accurate drawing than can be obtained by any other instrument or process. Further, you can reproduce the head of one picture, attach the body of a second, the eyes, nose or ears of a third, etc., etc.

Draughtsmen, Designers and Artists will find it invaluable, and when they are once the happy possessors of the Photo-Optican would not be without one for one hundred times the small cost of the instrument.

For Exposition Purposes it is without a rival, for, without expense to the exhibitor, an unlimited line of enlargements can be shown, colored or plain, using for originals almost anything at hand: natural flowers, bugs, butterflies, jewels, coins, photographs, illustrations from books, picture cards, etc., etc.

For an Afternoon Tea what more enjoyable entertainment could a hostess possibly offer her guests than the wonderful powers of this truly remarkable instrument.

If we devoted an entire book to describing the merits and possibilities of the Photo-Optican, we would still be compelled, for want of space, to leave much unsaid.

By adjusting the "reducing attachment" large pictures may be reduced to any size desired, all colors and details being preserved, as in the case of enlarging.

To Stained Glass Designers and Manufacturers.—The small colored sketch you usually submit to a customer is often unsatisfactory. If you had a Photo-Optican in your establishment

OIL PAINTING—Continued.

ALOE'S PHOTO-OPTICAN—Continued.

you could place your colored designs in the instrument and show your patron an exact reproduction of his contemplated window in *all colors* and *full size*, and if the submitted sketch proved satisfactory a mere boy could in a few moments make the working drawings that now cost you considerable of both time and money.

For Tapestry Painting.—The main obstacle the artist encounters in this branch of art is the difficulty in securing suitable designs large enough for portieres, screens, wall-panels, etc. The Photo-Optican enables him to select his subject without regard to the dimensions or nature of the original. For, be it wood-cut or photograph, tintype or lithograph, he can readily reproduce it in the desired size, and in proportion best adapted to the work in hand.

For China Painting.—Want of space will permit us to mention a few only of the many uses to which the Photo-Optican may be put in Ceramic Art. One of the most important is the drawing of a flat design on an irregular or rounded surface, as in the case of a vase, jardiniere, bowl, etc. It will also be found invaluable in reproducing natural flowers on china; a bunch of violets may be scattered over a piece of white paper and placed in the instrument and be reproduced on a flat plaque or tile, and if the arrangement is not satisfactory this or that flower may be moved into proper position on the paper, until the composition of the design on the plate satisfies the artist.

Prices.—To bring the Photo-Optican *within the reach of all*, and while we are fully aware that it could be readily sold at several times the price asked, we have decided to put it on the market at the following phenomenally low prices, and rest satisfied with a small manufacturers' profit.

1247	Photo-Optican, for enlarging purposes.	\$5 75
1248	For enlarging and reducing purposes	7 35

Directions for Use.—Place the frame in a *South* window, if possible; lower the window-sash until it rests firmly on the top of the Photo-Optican frame, as shown in the cut; exclude as much light as possible from the room, as the darker the room the better the results will be; hang a heavy dark curtain from the bottom of the window-sash *A* to exclude the light that would come in through the side of the window not occupied by the Photo-Optican. Do not fasten this curtain to the side of the Photo-Optican, as it is necessary to pass the hand through this opening in order to place the photographs or different objects on the movable platform or shelf *D*. Although it is not absolutely essential, it is preferable to have the sun shine directly on the platform *D*. Before placing the Photo-Optican in the window see that head *C* is fastened to the instrument with the lens pointing to the platform *D*. See that your screen, canvas or strainer *B* is perpendicular and square with the instrument. Now place the photograph or object to be enlarged on platform *D*, set your screen *B* at such a distance that the image will appear the desired size; move the knob attached to the sliding platform *D* up or down until the image is clear and distinct, and secure it in that position by turning the knob to the right. You can now sketch in your picture with pencil or brush.

To Reduce.—Screw the *reducing attachment* to the threads found on the head *C*, and proceed in the same manner as outlined above. If the picture to be reduced is very large, draw out the shelf *D* and place the picture somewhat below the instrument itself, at right angles with the wall of the house.

INSTRUCTIONS IN THE ART OF PAINTING IN OIL COLORS.

In the following pages we address ourselves particularly to the amateur, and it will be our earnest effort to offer as much serviceable information as possible, without burdening and useless detail. The majority of writers on this subject devote by far the greater portion of their time and space to an exhaustive description of the "materials and implements" necessary. While we fully appreciate the importance of such knowledge to the student, we feel that full justice has been done this branch of the subject in the foregoing pages, and to which we would earnestly direct your attention. Do not view that portion of this work as catalogue matter solely; and we further urge a careful study of the article on Pigments, to be found on pages 9 to 16. The matter

OIL PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PAINTING IN OIL COLORS—Continued.

in question has been written with great care, and to the conscientious artist is of itself worth many times the cost of this volume. It is, moreover, essential, if not absolutely necessary, that you should have a thorough knowledge of the oils, mediums and materials you use in the application of your art, and the information we furnish is gathered from sources unquestionably to be depended upon.

NOTE.—*The Studio* should have a north light only.

Before proceeding to practical instructions there are some observations necessary which, as they are applicable to all the branches, it is well to note here. The finishing processes known as "*scumbling*" and "*glazing*" are used, the former to give delicacy, the latter to give transparency and force.

Scumbling is used to secure atmospheric effect, therefore it should be employed as little as possible in foregrounds, as it subdues brilliancy, which is a quality necessary to near objects. The vehicle used is compounded of White, Turpentine and a few drops of Copal Varnish or Oil and tinted with color to suit the particular work in hand. It is best done with a bristle brush charged *sparingly* with the above suggested compound. You must work delicately over the previous painting, which, be it observed, should be dry and firm.

Glazing is working over portions of a picture that require force and depth with transparent color, thinned with Megilp, "Roberson's Medium" or some such vehicle. It is indispensable to the finish of all pictures, as it produces a quiet, transparent richness that could not be obtained by any other means.

Impasting is accentuating the high lights in a picture by applying color with a full brush when the under work is dry. The stroke should be bold and free. Impasting is employed mainly in foregrounds.

Handling means the method of using the brush.

ON THE MODE OF COMMENCING AND CONDUCTING A PICTURE.

There is no *exact* system upon which a landscape should be painted, for results equally good and agreeable arise from various modes of proceeding; in fact, almost every painter of eminence and experience has a distinctive mode and system peculiar to himself. There are, however, certain rules which must, in a greater or less degree, be observed; and in detailing these rules a mode of proceeding is selected, which is not only easiest to the beginner, but practiced by some of the best landscape painters of the present day.

The first thing to be done is to select a canvas of a moderate size—about 18 inches by 12, or 20 by 14. Larger sizes are difficult and unmanageable in the finishing; smaller ones are apt to engender a petty and confined style of work.

The selection of the canvas being thus made, let the design be drawn upon it with a firm, well-defined outline. For this purpose much time can be saved, and a good effect produced, by judicious employment of charcoal, a material admirably adapted to this purpose, in consequence of the facility with which the drawing may be corrected. The first sketch having been satisfactorily made, the loose particles of charcoal are carefully swept off. Retrace the whole with color, the outlines being repeated with lightness and delicacy, and lay in all the markings and gradations. The tint employed for this purpose may be almost any warm, transparent combination, as Burnt Umber and Rose Madder, Burnt Umber and Indian Red, Black and Indian Red, or even Burnt Umber alone.

The reader will understand that this mode of procedure is applicable alike to the treatment of any subject, be it landscape, portrait or still life.

In the practice of some artists the charcoal is succeeded by a warm water color tint, to which ox-gall has been added to make it flow and work freely; in either case the brush employed is a small Red Sable.

The utmost care should be given to accuracy of drawing, as any errors should now be corrected.

OIL PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PAINTING IN OIL COLORS—Continued.

The color should be laid sparingly in those parts of the picture where the light falls, but, of course, deeper where shade is indicated. The sketch should now be allowed to dry, after which the first painting, or dead coloring, may be commenced.

The economy of the palette and the composition of tints have always been the great difficulties in the early practice of the student. It is hoped that the arrangement and the tints which we will give under the several branches will save much time in doubtful experiment and guard against mortifying failures. It is a common plan to mix but a few tints, and to strengthen or reduce them by adding color with the point of the brush at the moment when they may be wanted.

The series of tints presented in our tables are, for the chief part, employed by the most eminent men in the profession. They are the results of the practice and experience of entire lives devoted to painting; their adoption by the beginner will save him much anxious thought and experiment, and secure a result which he could never hope to attain by his own unaided efforts.

It is very rare to find two painters working with precisely the same colors and tints, preference and feeling having much to do with the selection. If an artist be asked if he employs some certain colors which may be commonly used in flesh tints, for instance, he will perhaps answer that he does not, or cannot, use them.

A great stride has been made when an artist is assured that from a certain table of colors or tints certain results are obtained; but it must not be supposed that it only remains to apply them to the canvas. It will be found that there is yet much to be learnt which no rules can supply and that nothing but application can teach.

With a few colors a masterly hand will produce the most charming examples of art; but in order to qualify the hand and eye with co-operative powers equal to the production of such results, a course of assiduous practice is indispensable.

The great obstacle in the way of the beginner, in attempting to draw or paint from nature, is that he finds few things there which admit of a literal representation. To remove this obstacle the proper thing to do is to make a careful study of the means which others have used in representing this class of objects, and by practice to become familiar with the means they have employed. Then, when he goes to nature, he will, in some measure, be prepared to give expression to what he sees.

There is a class of theorists who insist that the beginner should never work from original oil paintings, colored studies or drawings; that he should go to nature for his models. There might be some little show of good sense in this criticism, provided that the beginner were gifted with an intuitive knowledge of the proper means to be employed in representing objects that do not of themselves even suggest any means by which they may be represented with the pencil or brush; but, unfortunately, this is not the case. The argument is, that the pupil who works from the productions of another will adopt his style of expression, his method of doing things, and will never be able to rid himself of it—he can never become original. If this is true in art, it should be true in literature. Is it true that the student who studies the writings of Addison, Scott, Irving and others, eminent for their style, can never do any original work along these lines himself? How is it with penmanship, which is nothing more nor less than drawing, at least in its first steps? While under his instructor, the student is an imitator, but this does not impair his originality, if he has any originality. Wait till he leaves his instructor and begins to work without a printed example before him, and you will see that he will gradually acquire a style of his own, so that any one familiar with his handwriting would recognize it at a glance, by certain peculiarities. This result always follows; there are no exceptions to it. A like result is just as sure to follow where the pupil works from studies; no one ever met with an exception—and no one ever will.

The young artist will always be improved by working from *good* studies in the *right way*. The old method of copying a picture thoughtlessly, making stroke for stroke, dot for dot, never did and never will be of any appreciable assistance to the pupil when he attempts to paint from nature. In working from a study, or in painting directly from nature, the first step is to block out the subject, to get the general forms of the leading objects, without going into detail at all. In working from a study what you should do is this: Examine that part of the example which you are about to work upon, get the idea intended to be conveyed in this portion of the picture. Then see what means have been employed to express the idea; what you should think of is *how the work was done*.

OIL PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PAINTING IN OIL COLORS—Continued.

FIRST PAINTING.

Lay your palette as indicated in tables to follow in accordance with the subject you have in hand; mix your several tints, arranging them with the brightest to the extreme right, graduating them round to the left, until the shade tints are placed. Now, with a bristle brush, as large as the work in hand will permit, lay in the darkest shades of your picture broadly and with as much freedom as possible without endangering your drawing; proceed in this manner with those portions of your contemplated painting as are next lightest in tint or *tone*, until your canvas is covered. It is only in this way that you can preserve your *values*. It must again be observed that the color should be tempered with a proper quantity of vehicle, that it may work crisply and pleasantly, and, above all, that it be laid sparingly upon the canvas. The proper "*handling*" for a sky or background is a short stroke from left to right, beginning at the left-hand upper corner, and working down and across. In the first painting, the lights are laid on with a moderate quantity of color, the shadows being put in more thinly.

By not going too far in the first painting, and by allowing it to dry, the student secures the drawing, as well as the purity and clearness of his first painting. This course is advisable until he has had some practice in the manipulation of colors.

THE PREPARATION OF THE WORK FOR THE SECOND PAINTING.

If the first painting has been executed with any degree of freedom, and left to dry without having been slightly touched here and there with a soft brush to remove any superficial inequalities which might affect the second painting, it will be necessary to examine the picture with a sharp knife or scraper; but this operation cannot be performed until the work is perfectly dry. This may be determined by breathing on the surface, which, if dry, will immediately assume a dull and misty appearance; but if still wet, it will remain unsullied.

The surface having been reduced, if necessary, a wetted sponge should be lightly passed over it; when dry, which it will be in a few minutes, a small quantity of Poppy Oil should be lightly brushed over the work, from which the superfluous moisture may be removed by the gentle application of an old silk handkerchief.

The object of thus moistening the surface with Poppy Oil is to make the subsequent painting unite with the first, and so embody the first, second and following paintings, that no discordant difference of execution may appear in the picture.

All oil colors sink to a certain extent, and, in the progress of a picture, sometimes so much so as to render the application of Poppy Oil or Retouching Varnish necessary in order to see the real strength and details of the work.

In the second painting, we advance by giving more attention to the characteristic details of the various objects. Their drawing, light and shade, reflected hues, and varieties of tints in coloring, are more elaborately made out; and in the case of landscape painting, the relative distances of objects from the eye are most carefully preserved; and the shadows, being still painted thinly and transparently, are carefully united (where it is necessary to unite them) with half tints, so as to produce roundness or solidity. A great body of color is laid on the lights, which are also now penciled with great attention to character and sharpness; and the touches on the high lights are put in with firmness and precision.

The brightest lights are best obtained by making them quite white on the first paintings, and then bringing them to their proper hue by glazing.

The badger-hair blender is now to be used, but cautiously and sparingly, to unite and soften the tints into each other, and to reduce the surface to a level, by removing the marks of the brush. In this way the painting receives greater transparency, and so far an agreeable finish.

Whatever the subject be, let the early paintings be of a light and rather brilliant style of color; for, in finishing, it is scarcely possible to prevent the brighter colors from being cooled down and subdued. Avoid the early introduction of much cool color, which can be conveniently and effectually added as the picture advances towards completion. Remember, too, that every color in drying will sink, and that it will partake, in proportion to its body, of the color upon which it is laid; hence all tints, if not laid upon a light, clear under-painting, will change, and will, in drying, lose a little of their power and brilliancy. It is necessary, therefore, that some

OIL PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PAINTING IN OIL COLORS.—Continued.

allowance, in preparing tints, should be made for this change. In connection with this it may be remarked that strong tones and shadows should not be laid in with too much power and depth, but something should rather be left to the deepening effect of time.

Thus it will be understood how the second painting should give us a tolerably finished effect ere we proceed to the final or *third* painting.

THE THIRD PAINTING.

The third, or finishing, is commenced by wiping and oiling the picture in the manner we have described as necessary for the second painting. We now proceed to complete those details of form and color which were partially brought forward in the former paintings, employing for this purpose delicate touches, glazing and scumbling; our object is not to conceal, but to render more perfect what has already been done. Here a portion of the picture is too prominent and obtrudes itself—we retire this to its proper position and importance by judicious scumbling. There a portion of the picture lacks force, and by skillful glazing the fault is corrected, while in a dozen places the eye will detect the necessity of isolated touches and delicate modeling to give decision to the work. Recourse is generally had to smaller brushes in effecting this object.

In this stage of the work do not attempt too much at one sitting, as, by proceeding too far, the tints laid by scumbling and glazing interfere with each other, while if the work is set aside from time to time, the eye is better able to judge where the necessary touches are most required.

LANDSCAPE AND MARINE PAINTING IN OIL COLORS.

The following tables apply to Water Colors as well as Oil, save that in the former White is omitted.

SKIES.

Daylight Skies, more or less pure.	{	White with Cobalt, New Blue or French Ultramarine.
		White, Rose Madder, and one of the above blues.
		White and Aureolin.
		White and Naples Yellow.
		White, Rose Madder and Yellow Ochre.
		White, Vermilion and Yellow Ochre.
Twilight.	{	White, Indian Red and Yellow Ochre.
		White, Rose Madder and Naples Yellow.
		White and Cobalt, or French Ultramarine or New Blue.
		White, and one of the above blues, warmed with Indian Red.
Sunset for all parts of the Sky.	{	White, Cobalt and Purple Madder.
		White, Cobalt and Indigo.
		White and Yellow Ochre.
		White and Imperial Orange.
		White and Cobalt.
		White and Cadmium.
		White and Aureolin.
		White, Yellow Ochre and Rose Madder.
		White, Cadmium Yellow and Indian Red.
		White and Rose Madder.
	{	White and Purple Madder.
		White, Rose Madder and Naples Yellow.
		White and Naples Yellow.

NOTE.—As a general rule in mixing compound tints always begin with the predominating color and add the others to it; by so doing, much trouble will be saved.

OIL PAINTING—Continued.

LANDSCAPE AND MARINE PAINTING IN OIL COLORS—Continued.

Sunrise.	{	White, Rose Madder and Cobalt.
		White and Indian Red.
		White and Aureolin.
		White and Purple Madder.

CLOUDS.

If Soft and Aerial.	{	White, Cobalt and Indian Red.
		More Cobalt, if of a blue Tone, and Indian Red, if warm.
		White, Vermilion and Cobalt.
		White, Aureolin and Cobalt.
If of a Purple Tone.	{	White, Indian Red and Cobalt.
		White, Brown Madder and Cobalt.
		White, Rose Madder, Light Red and Cobalt.
		White, Yellow Ochre, Purple Madder and Cobalt.
If Dark and Lowering, and for Twilight away from the Sun's influence.	{	White, Cobalt and Raw Umber.
		White, Cobalt and Brown Madder.
		White, Indigo and Brown Madder.
		White, Indigo, Indian Red and Yellow Ochre.
		White, Cobalt, Indian Red and Yellow Ochre.
If a Cold Grey.	{	White, Rose Madder and Raw Umber.
		White, Cobalt and Black.
		White, French Ultramarine and Black.
		White, Ultramarine Ash and Black (very soft).
Silvery Tones exceed- ingly useful.	{	White, Cobalt, Sepia and a little Purple Madder.
		White, Light Red, Black and Cobalt in different proportions.
		White and Yellow Ochre.
		White and Aureolin.
For High Lights.	{	White, Yellow Ochre warmed with Rose Madder.
		White, Yellow Ochre and Indian Red.
		White, Cadmium warmed with Rose Madder.
		White, Cobalt and Black.
If Stormy.	{	White, Cobalt, Black and Indian Red.
		White, Lamp Black and Light Red, if murky and dirty.
		(This Tint is particularly useful in the dark marking of the clouds.)
		White, Cobalt and Yellow Ochre
		White, Indigo and Rose Madder.
		White, Rose Madder and Black.
		White, Brown Madder and Cobalt.
		White, Cobalt, Burnt Sienna and Rose Madder.

SUNSET AND SUNRISE CLOUDS.

If Deep Orange.	{	White, Cadmium Yellow and Rose Madder.
		White, Cadmium Yellow and Indian Red.
		White, Yellow Ochre and Indian Red.
		White, Indian Yellow and Rose Madder.
		White, Indian Yellow and Indian Red.
		White and Mars Orange
		White and Imperial Orange.
	{	White, Yellow Ochre and Vermilion.

OIL PAINTING—Continued.

LANDSCAPE AND MARINE PAINTING IN OIL COLORS—Continued.

If Golden.	{ White and Aureolin. White and Cadmium Yellow. White, Indian Yellow and Rose Madder. White and Naples Yellow.
If Scarlet.	{ Any of the above compounds, using more Red than Yellow and glazing with Rose Madder.
If Crimson.	{ White and Indian Red glazed with Rose Madder. White and Imperial Orange glazed with Rose Madder. White and Rose Madder. White and Rose Madder deepened with a little Purple Madder.
If Purple.	{ White, Indian Red, Rose Madder and Cobalt. White, Purple Madder and Cobalt.

French Ultramarine should be substituted for Cobalt in all deep tones.

If Slate-Color.	{ White, Cobalt and Brown Madder. White, Indigo, Black and Indian Red. White, Cobalt, Raw Umber and Brown Madder. White, Cobalt, Purple Madder and Black.
Cold, Neutral Green.	{ White, Cobalt, Yellow Ochre and Rose Madder. White, Cobalt, Burnt Umber or Vandyke Brown. (This Tint is for the clouds at the greatest distance from the sun.)

MOUNTAINS AND DISTANCES.

Mountains or Hills. if very Remote.	{ White, Cobalt with a very slight addition of Naples Yellow and Rose Madder. White, Cobalt with a little Rose Madder. White, Cobalt, Indigo and Rose Madder; if more subdued, Ultramarine Ash softened with a little Black. White and Ultramarine Ash.
If Lit up by the Sun.	{ White, Yellow Ochre and Rose Madder. White, Naples Yellow and Rose Madder. White, Cadmium Yellow and Rose Madder. White, Aureolin and Rose Madder. White and Lemon Yellow. White, Yellow Ochre and Indian Red. White and Rose Madder White and Light Red.
If Nearer.	{ White, Cobalt and Rose Madder. White, Cobalt and Brown Madder (very useful). White, Cobalt and Light Red (very useful). White, Indigo and Rose Madder. White, Indigo and Purple Madder (beautiful and soft Purple). White, Cobalt and Purple Madder (brighter). White, Cobalt, Black and Rose Madder.
Distant Foliage and Herbage in General in the Distance.	{ White, Yellow Ochre, Cobalt and a little Rose Madder. White, Yellow Ochre, Cobalt, Indigo and Rose Madder (stronger). White, Yellow Ochre, Cobalt and Light Red. White, Roman Ochre, Cobalt and Rose Madder. White, Yellow Ochre, Indigo, a little Cobalt and Indian Red.

A little Naples Yellow with either of the above.

OIL PAINTING—Continued.

LANDSCAPE AND MARINE PAINTING IN OIL COLORS—Continued.

For Glazing the Above.	{	Indian Yellow.
	{	Indian Yellow and Brown Madder.
	{	Indian Yellow and Italian Pink.
	{	Gamboge.
	{	Gamboge, Brown Madder.
	{	Gamboge, Vandyke Brown.
	{	Burnt Sienna.
	{	Raw Sienna.
	{	Mars Orange (a most transparent color).

TINTS FOR STILL WATER.

(Depending upon the Weather).

If the Weather be Soft and Mild.	{	White, Cobalt, Blue, Rose Madder and Yellow Ochre.
Darker.	{	White, Cobalt, Blue and Indian Red.
More Clouded.	{	White, Cobalt, Indigo and Brown Madder.
The Same.	{	White, Cobalt, Brown Madder and a little Sepia.
Darker.	{	White, Indigo and Brown Madder or Light Red.

RUNNING BROOKS AND STREAMS.

If Yellow or Deep Orange.	{	White and Raw Sienna.
	{	White, Raw Sienna and Vandyke Brown.
	{	White, Raw Sienna and Brown Madder.
If of a Green Tone.	{	White, Raw Sienna and Indigo.
	{	White, Roman Ochre and Indigo.
	{	White, Indian Yellow, Burnt Sienna and Indigo.
	{	White, Indian Yellow, Vandyke Brown and Indigo.
If Partaking of a Grey Character, yet Bearing Color.	{	White, Brown Pink and Indigo subdued with Vandyke Brown.
	{	White, Burnt Sienna and Cobalt.
	{	White, Brown Madder, Cobalt and Raw Sienna.
	{	White, Cobalt, Purple Madder and Gamboge.
If Very Dark.	{	White, Indigo, Brown Madder and Indian Yellow.
	{	Brown Madder and Vandyke Brown.
	{	Rose Madder, Indigo and Vandyke Brown.
	{	Indian Yellow, Sepia and Rose Madder.
For the Weeds under Water when Very Dark.	{	Indian Yellow, Burnt Sienna and Indigo used very thickly. (This is a mixture of much power and softness.)
For the Dark Markings and Divisions of Stones.	{	White, Brown Madder and Indigo.
	{	Vandyke Brown, Rose Madder and Indigo.
	{	Neutral Tint and Burnt Sienna.
	{	Payne's Grey and Burnt Sienna (very useful).
	{	Cobalt and Burnt Sienna (very useful).
	{	Brown Madder deepened by French Ultramarine (very rich).
	{	Sepia and Brown Madder (very rich).
		Add White if required.

OIL PAINTING—Continued.

LANDSCAPE AND MARINE PAINTING IN OIL COLORS—Continued.

THE SEA.

Local Tints. Stormy.	{	Cobalt and Burnt Sienna.
		Vandyke Brown and Cobalt.
		Vandyke Brown and Indigo.
		Burnt Sienna and Indigo.
		Raw Sienna and Lamp Black.
		Raw Sienna and Sepia.
		Raw Umber, Indigo or Cobalt.
		Vandyke Brown and Raw Sienna.
		Use more or less White with the above.
Sea Greens, more or less pure.	{	Raw Sienna and Cobalt.
		Raw Sienna and Indigo.
		Raw Sienna, Prussian Blue, and add a very little Bistre.
		Bistre, Prussian Blue and Gamboge (a fine tint).
		Cadmium Yellow and Cobalt Blue (a beautiful Sea Green).
		Gamboge and Cobalt.
		Gamboge and Sepia.
		Roman Ochre and Indigo.
		Emerald Green, used very lightly to heighten the purity of some very vivid and effective part.
		Use more or less White with the above.
For the Highest Lights Possessing Color.	{	White and Raw Sienna.
		White and Yellow Ochre.
		White, Raw Sienna and Vandyke Brown.
		White, Raw Sienna and Brown Madder.

TABLE OF COLORS FOR SHIPPING, SAILS, ETC.

If Black.	{	French Blue, Sepia and Lake.
		Indigo and Rose Madder.
		Black.
		Lamp Black and Rose Madder.
If Brown.	{	Black and Light Red.
		Payne's Grey and Burnt Sienna.
		Payne's Grey and Light Red.
		Payne's Grey and Vandyke Brown.
If Yellow.	{	Cobalt Blue, Brown Madder and Burnt Sienna.
		Raw Sienna.
		Raw Sienna and Vandyke Brown.
		Raw Sienna and Brown Madder.
Light Sails.	{	Raw Sienna and Raw Umber.
		Use more or less White with the above.
		White and Yellow Ochre, more or less delicate, with a little Raw Umber mixed for the shadows.
		White, Payne's Grey and Light Red.
Red Sails.	{	White, Cobalt and Light Red.
		Burnt Sienna and Brown Madder.
		Burnt Sienna.
		Burnt Sienna and Indian Red.
		Light Red and Brown Madder.
	{	Light Red and Purple Madder.
		Roman Ochre and Brown Madder.

In oil painting, use more or less White with the above.

OIL PAINTING—Continued.

LANDSCAPE AND MARINE PAINTING IN OIL COLORS - Continued.

Baskets.	{	Raw Sienna.
		Raw Sienna and Vandyke Brown.
		Raw Sienna and Brown Madder.
		Raw Umber.
		Indian Yellow, Burnt Sienna and Indigo.
		Add White as values may require.
Very Deep and Intense Tints.	{	Sepia and Brown Madder
		Sepia and Lake
		Purple Madder.
		Vandyke Brown, Lake and Indigo.
		Vandyke Brown.
		Brown Pink and Purple Madder.
		Lighten with White.

TABLE OF COLORS FOR TREES AND FOLIAGE.

<p>All these Compound Tints are beautiful and may be made more or less bright or sombre, according to the proportion of Yellow or Blue with the Brown or Red.</p> <p>Those partaking of the Orange Tone, and marked *, are for Autumnal effects as well as for glazing.</p>	{	Aureolin, Burnt Sienna and Indigo.
		Gamboge, Burnt Sienna and Indigo.
		(A little Cobalt to the above will give greater purity.)
		Gamboge, Brown Madder, Indigo and Cobalt.
		Gamboge and Sepia.
		Roman Ochre, Indigo and Rose Madder.
		Roman Ochre, Indigo, Rose Madder and Cobalt.
		Brown Pink.
		Brown Pink, Vandyke Brown and Indigo.
		Olive Green.
		Zinober Greens, in Oil Colors.
		(Where the young artist has trouble in making his Greens, he had much better content himself with the line of made Greens, of which the Zinober stand in the first rank.)
		Olive Green and Indigo.
		Olive Green and Burnt Sienna.
		Prussian Blue and Bistre.
		Prussian Blue, Bistre and Indian Yellow or Gamboge.
		Indian Yellow, Burnt Sienna and Indigo.
		Indian Yellow, Vandyke Brown and Indigo.
		Indian Yellow, Sepia, Indigo and Cobalt.
		Indian Yellow and Lamp Black.
		*Gamboge and Brown Madder.
		*Raw Sienna and Indigo.
		*Brown Ochre.
		*Burnt Sienna.
		*Indian Yellow and Purple Madder.
		*Indian Yellow and Rose Madder.
		Italian Pink with either Indigo or Cobalt.
		*Roman Ochre and Brown Madder.
		French Blue may be substituted for Indigo in the purer tint.
		Naples Yellow, with either of the above, where opacity or a misty greyness is required.
		*Naples Yellow to be touched on sharply and thick for strong and catching lights, where they can neither be left nor taken out.

Aureolin may be substituted for any of the bright Yellows.

NOTE.—White may be added where necessary. The above list is a very comprehensive one, and should be re-garded with attention. Every tint, from the brightest to the deepest, will be found there, and it will be worth the trouble to try each as they occur, by which their fitness for one purpose will be ascertained in a short time. There is yet one thing to caution the young artist against, which is blackness; your deepest shades must be largely affected by contrast.

OIL PAINTING—Continued.

LANDSCAPE AND MARINE PAINTING IN OIL COLORS—Continued.

TABLE OF COLORS FOR ROCKS.

For Grey Rocks.	{	White, French Blue and Black.
		White and Black.
		White, Cobalt and Light Red.
		White, Indigo and Light Red.
		White, Indigo, Burnt Sienna and Lake.
		White, Indigo and Brown Madder.
		White, Indigo and Indian Red.
		White, Black, Cobalt and Purple Madder.
		White, Black and Emerald Green.
		White, Black and Rose Madder.
		White, Vandyke Brown and French Blue.
		White, Indigo, Rose Madder and Roman Ochre.
		White, Raw Umber and Cobalt Blue.
		Raw Sienna, Vandyke Brown and Cobalt.
		Raw Sienna, Brown Madder and Indigo.
Local Colors, Warm and Cold.	{	Yellow Ochre and Light Red.
		Yellow Ochre.
		Light Red.
		Burnt Sienna.
		Burnt Sienna and Payne's Grey.
		Indian Yellow, Burnt Sienna and Indigo.
		Brown Madder.
		Raw Umber.
		Raw Sienna and Brown Madder.
		Brown Madder and Sepia.
		Bistre and Prussian Blue.
		Light Red and Prussian Blue.
		Add White as required.

TABLE OF COLORS FOR STEMS AND BRANCHES.

For the Stems and Branches, both Grey and Warm.	{	Vandyke Brown.
		Brown Madder.
		Brown Madder and Indigo or Cobalt.
		Burnt Sienna and French Ultramarine.
		Indian Yellow, Burnt Sienna and Indigo.
		(The most useful for Branches shadowed by depth of foliage.)
		Payne's Grey and Light Red.
		Black and Rose Madder.
		French Ultramarine and Purple Madder.
		Indigo and Rose Madder with a little Yellow Ochre.
		Brown Madder and Sepia.
		Sepia and Purple Madder.
		Add White, if required.

TABLE OF COLORS FOR FOREGROUND, HERBAGE, ETC.

Pure Greens for Grass, more or less bright.	{	Indian Yellow and Indigo.
		Gamboge and Indigo or Cobalt.
		Raw Sienna and Indigo.
		Roman Ochre and Indigo.
		Zinober Greens, Nos. 1 and 2, for Oil.
		Zinober Green, extra light.
		Add White, if required.

OIL PAINTING—Continued.

LANDSCAPE AND MARINE PAINTING IN OIL COLORS—Continued.

Broken Greens, both for Light and Shadow.	{	Gamboge, Burnt Sienna and Indigo. Indian Yellow, Burnt Sienna and Indigo. Brown Pink and Indigo. Brown Pink. Raw Sienna, Rose Madder and Indigo. Roman Ochre, Indigo and Rose Madder. Gamboge and Sepia. Zinober Greens, Nos. 2 and 3. Add White, if required.
	{	Gamboge and Brown Madder. Indian Yellow and Brown Madder. Brown Ochre. Burnt Sienna. Raw Sienna. Roman or Yellow Ochre. Indian Yellow. Gamboge and Vandyke Brown. Italian Pink. Gamboge and Rose Madder. Indian Yellow and Purple Madder. Pure Naples Yellow, for the sharp touches on grass. Greenish Naples Yellow. Zinober Greens, extra light, light and medium. Add White, if required.
Warm Tones for High Lights, also for Faded and Decayed Leaves.	{	
For Glossy Leaves in High Light; also for all very cold Tones.	{	Cobalt and a little Emerald Green. Cobalt and Rose Madder. Indigo. Indigo and Rose Madder. Cobalt and Purple Madder. Prussian Blue and Rose Madder. Payne's Grey and Gamboge. Cobalt and Naples Yellow.
	{	

TABLE OF COLORS FOR BANKS AND ROADS.

General Tones of the Ground.	{	Yellow Ochre. Yellow Ochre and Light Red. Yellow Ochre, Burnt Sienna and a very little Cobalt. Yellow Ochre and Vandyke Brown. Burnt Sienna. Light Red and Lamp Black. Yellow Ochre, Light Red and Payne's Grey. Yellow Ochre and Indian Red. Add White, if required.
	{	
Mixtures for Shadows.	{	Black and Light Red. Black and Rose Madder. Indigo and Light Red. Indigo and Indian Red. Payne's Grey. Cobalt and Brown Madder. Cobalt, Burnt Sienna and Rose Madder. Sepia. Sepia and Brown Madder. Vandyke Brown. Vandyke Brown and Purple Madder. Purple Madder.
	{	

OIL PAINTING—Continued.

LANDSCAPE AND MARINE PAINTING IN OIL COLORS—Continued.

TABLE OF COLORS FOR THE PARTS OF BUILDINGS.

Tints for Stone.	<ul style="list-style-type: none"> Yellow Ochre. Yellow Ochre and Lamp Black. Yellow Ochre and Sepia. Yellow Ochre, Sepia and Payne's Grey (very beautiful). Raw Umber by itself, or with French Blue. Burnt Umber. Yellow Ochre, Light Red and Cobalt.
Bricks or Tiles in Lights.	<ul style="list-style-type: none"> Burnt Sienna. Light Red. Brown Madder. Indian Yellow and Brown Madder. Yellow Ochre and Indian Red.
Bricks or Tiles. in Shadow.	<ul style="list-style-type: none"> Burnt Sienna and Brown Madder. Light Red and Payne's Grey. Burnt Sienna and Purple Madder. Purple Madder. Vandyke Brown, Purple Madder and French Blue or Indigo. Indian Red and Indigo. Roman Ochre, Indian Red and French Blue. Lamp Black and Rose Madder.
Wood.	<ul style="list-style-type: none"> Yellow Ochre and Lamp Black. Cobalt and Light Red. Indigo and Light Red. Lamp Black. Sepia. Raw Umber. Burnt Umber. Vandyke Brown. Lamp Black and Rose Madder. Payne's Grey with either Yellow Ochre, Burnt Sienna or Light Red. Brown Madder and Sepia. Brown Madder and French Blue. Brown Madder, Burnt Sienna and French Blue.
Slate.	<ul style="list-style-type: none"> Lamp Black. Lamp Black and Rose Madder. Sepia, Lake and Indigo. Indigo and Lake. French Blue and Purple Madder. French Blue and Brown Madder. French Blue and Black. Payne's Grey.
Plaster.	<p>Always add White if required.</p> <ul style="list-style-type: none"> The same as Slate, with the addition of Yellow, more or less—Yellow Ochre.
Mud Walls.	<ul style="list-style-type: none"> Raw Umber. Vandyke Brown. Burnt Umber. Sepia and Yellow Ochre.

Use any of the above in combination with more or less Cobalt or Indigo if Grey is required.

OIL PAINTING—Continued.**LANDSCAPE AND MARINE PAINTING IN OIL COLORS—Continued.**

Thatch.	{	Brown Madder.
		Purple Madder.
		Brown Madder and Cobalt or Indigo.
		Indigo and Rose Madder.
		Yellow Ochre and Brown Madder.
		Sepia.
		Vandyke Brown
		Yellow Ochre
		Red.

TABLE OF COLORS FOR CATTLE AND OTHER ANIMALS.

Light Cows, Horses and Dogs.	{	Yellow Ochre.
		Yellow Ochre and Burnt Sienna.
		Light Red.
		Burnt Sienna.
If Bay.	{	Burnt Sienna and Brown Madder.
		Light Red and Brown Madder.
		Indian Yellow and Brown Madder.
If Dark Bay.	{	Brown Madder.
		Vandyke Brown and Purple Madder.
		Brown Madder and Sepia.
		Vandyke Brown and Rose Madder.
If Dark Brown.	{	Sepia and Rose Madder.
		Vandyke Brown.
If Black.	{	Indigo and Rose Madder.
		Brown Madder, Indigo and Rose Madder.
		Black and Rose Madder.
		Cobalt, Sepia and Rose Madder.
		Payne's Grey and Vandyke Brown.
Sheep.	{	Yellow Ochre.
		Roman Ochre.
		Roman Ochre and Vandyke Brown.
		Raw Umber.
Shadow Colors.	{	Burnt Sienna and Payne's Grey.
		Cobalt and Light Red.
Black Head and Feet.	{	Payne's Grey, shaded with Vandyke Brown and Payne's Grey; or
		Payne's Grey and Brown Madder.

PORTRAIT PAINTING IN OIL COLORS.**TABLE OF COLORS FOR FIRST PAINTING.**

		FLESH.
Highest Lights.	{	White.
		White and Naples Yellow.
		White, Naples Yellow and Vermilion.

NOTE.—These tables apply to Water Colors as well, save that White is left out, as the paper itself serves the purpose.

NOTE.—Portrait Painting is governed by the same general rules and laws as laid down in our article entitled: "Instruction in the Art of Oil Painting," page 56, to which we now refer you.

OIL PAINTING—Continued.

PORTRAIT PAINTING IN OIL COLORS—Continued.

Second High Lights.	{ White and Light Red. White, Light Red and Vermilion.
Third High Lights.	{ White, Black and Vermilion mixed to Reddish or Violet Greys. White, Black, Indian Red and Raw Umber.
Next to Carnation Tints.	{ White and Terre Verte. White, Terre Verte, Black and Indian Red.
Carnation Tints.	{ White and Rose Madder. White and Indian Red.
Shade Tints.	{ Raw Umber and Light Red. Raw Umber, Indian Red and Black.

The hair, if light, can be freely painted in with White, Yellow Ochre and Vandyke Brown; and the same colors, with the addition of Raw Umber, will serve to sketch in dark hair, the darker colors, of course, prevailing.

In the first painting of the hair little more can be done than to rub in the forms and markings as nearly as possible to the dispositions intended to be maintained.

TABLE OF COLORS FOR SECOND AND THIRD PAINTINGS.

FLESH.

Highest Lights.	{ Pure White.
Secondary Lights.	{ White and Naples Yellow.
Highest Tint.	{ White, Naples Yellow and Rose Madder.

The following Tints may be strengthened, or reduced, in order to imitate the complexion, according to the proportion of White, Red or Yellow of which they may be composed:

Carnation Tints.	{ White, Raw Sienna and Rose Madder. White, Raw Sienna and Indian Red. White, Naples Yellow and Indian Red. White, Naples Yellow and Rose Madder, qualified with a little Ultramarine. White, Mars Orange and Rose Madder. White and Rose Madder. White, Rose Madder and a little Indian Red. White, Rose Madder and a little Light Red. White, Rose Madder and a little Raw Sienna.
Next Lower in Tone.	{ White and Indian Red. White and Purple Madder. White and Indian Lake.
Predominating Flesh Tones.	{ White and Brown Madder. White, Brown Madder and Burnt Sienna.
Green Tones in Flesh.	{ White and Terre Verte. White, Naples Yellow and French Ultramarine. White, Yellow Ochre and French Ultramarine. White, Raw Sienna and French Ultramarine.
Green Greys in Flesh.	{ White, Terre Verte and Indian Red. White, Naples Yellow, Indian Red and French Ultramarine. White, Raw Umber and Ultramarine. White, Raw Umber, Ultramarine and Indian Red.

OIL PAINTING—Continued.

PORTRAIT PAINTING IN OIL COLORS—Continued.

Warm Greys in Half Lights.	{ White, Light Red and Emerald Green. (Capable of giving most beautiful tones, from cold to warm, according to proportion of Green or Red.)
Greys.	{ White, French Ultramarine and Indian Red. White, French Ultramarine, Indian Red and Raw Umber. (This Tint is most valuable; it is capable of any depth of tone.) White, Black and Light Red. White, Black and Brown Madder. White, Light Red and Ultramarine.
Purple Tones.	{ White, Rose Madder and French Ultramarine. White, Indian Lake and French Ultramarine. White, Purple Madder and French Ultramarine. White, Indian Red and French Ultramarine.
Deep Shadows.	{ Raw Umber. Raw Umber and Light Red. Raw Umber, Indian Red and Black. Vermilion and Black.
For Deep Glazing.	{ Indian Lake. Brown Madder, Raw Sienna and Indian Lake. Raw Sienna and Brown Madder. Burnt Sienna and Rose Madder. Light Red, Indian Lake and Vandyke Brown.
Hair Tints, Light.	{ White, Naples Yellow and Raw Umber. White, Yellow Ochre and Vandyke Brown. White, Raw Sienna and Raw Umber. White, Yellow Ochre, Burnt Sienna and a little Black.
Half Tones.	{ The same as above, with less Yellow, and mixed with the flesh deep Greys.
Deep Shadows.	{ Raw Umber. Vandyke Brown. Raw Sienna and Vandyke Brown. Raw Umber and Brown Madder.
Brown Hair.	{ Raw Umber. Raw Umber and Vandyke Brown. Vandyke Brown. Cappah Brown,

SHADING FOR BROWN HAIR

The deep Grey to be painted into the shadows, and pure Brown Madder worked into that; or Vandyke Brown and Brown Madder mixed; or Brown Madder and Ultramarine. The great beauty in painting hair is to let the Greys be seen through the local color.

DELICATE COMPLEXIONS.

For those of ladies and children, the following Tints may be used, the White predominating in each:

White, Naples Yellow and Rose Madder.
The same, toned with Ultramarine.
White, Raw Sienna and Rose Madder.
White, Naples Yellow and Indian Red.
White and Rose Madder.

White, Rose Madder and Light Red.
Rose Madder and Raw Umber.
Rose Madder and Raw Sienna.
White, Light Red and Emerald Green.

OIL PAINTING—Continued.

PORTRAIT PAINTING IN OIL COLORS—Continued.

For complexions of strong, ruddy and mellow hues, the following Tints will be found useful; in these the Yellows and Reds will prevail:

White, Raw Sienna and Rose Madder.

White, Yellow Ochre and Vermilion.

White and Light Red.

White, Light Red and Yellow Ochre.

White, Orange Mars and Rose Madder.

White, Terre Verte and Indian Red.

Raw Sienna and Rose Madder.

Such complexions may be toned with Raw Sienna and Rose Madder before commencing the second painting. A charming effect is produced by working into this glaze.

Reds slightly Violet, sometimes seen about the Lips, Nostrils and Ears.	{	Purple Lake and Light Red. The same, reduced by White.
--	---	---

Broken Bluish and Greenish Hues Around Mouth and Chin.	{	French Ultramarine, Yellow Ochre, Rose Madder and White. Rose Madder, Blue Black, Yellow Ochre and White.
--	---	--

For Decided Tonches About the Mouth, Nos- trils and Eyes in a Strongly Shaded Head.	{	Purple Lake and Burnt Sienna. Vandyke Brown and Burnt Sienna.
--	---	--

PALETTES FOR THE HAIR.

The colors used in painting the hair are White, Yellow, Black, Raw and Burnt Umber, Bone Brown, Burnt Sienna, Brown Madder, etc., in Tints and combinations of two and three—as Black and Umber, Black and Burnt Sienna, Black and Brown Madder, White, Black and Umber, etc. Other colors are used, but the result is the same.

PALETTES FOR BACKGROUNDS.

FOR PLAIN AND CLOSE BACKGROUNDS.

White.	Naples Yellow.	Antwerp Blue.
Black.	Yellow Ochre.	Burnt Umber.
Venetian Red.	Brown Ochre.	Raw Umber.
Indian Red.	Prussian Blue.	Burnt Sienna.
Vermilion.		

It will be understood that it is not necessary to place all the colors on the palette at the same time, but such a selection should be made as will suit the proposed background.

OCCASIONAL TINTS.

Pearl.	{	White, Black and Vermilion; or, if required stronger, substitute Indian Red for Vermilion.
Grey.	{	Black and White, employed to lighten parts that are too dark, or to reduce those that are too warm.
Yellow.	{	Brown Ochre and White.
Olive.	{	Terre Verte, Umber and Naples Yellow.
Dark.	{	Black and Burnt Sienna.
Stone.	{	Black, White and Umber. Black, White, Umber and Yellow. Umber and Yellow.

OIL PAINTING—Continued.

PORTRAIT PAINTING IN OIL COLORS—Continued.

Numerous other Tints, varying according to the proportions of the warm or cold colors, and which work admirably when broken by others, are composed of:

- { Black, White and Burnt Sienna.
- { Antwerp Blue, Venetian Red and White.
- { Terre Verte, Indian Red and White.

DRAPERIES.

LINEN.

Linen may be successfully painted with Ivory Black or Blue Black and White, slightly warmed with Umber in the markings, and forced yet further with Yellow, or a small proportion of Red, where it approaches the skin, or receives warm reflections.

WHITE SATIN

White satins have both warm and cold tones. With the following palette, any of these may be successfully imitated by selecting and graduating the Tints to meet the hues and tones of the material:

- { White.
- { White and Raw Umber.
- { White and Ivory Black.
- { White, Raw Umber and Ivory Black.
- { White and Indian Red.
- { White, Black and Indian Red.
- { Brown Ochre and White.
- { Ultramarine and White.

BLACK SATIN.

In painting all black or dark materials, it is necessary to keep the shades and markings transparent and decided, which is effected by sustaining them in opposition to broad lights. We frequently see the dead coloring of black satin laid with Black and White and some warm Brown, such as Burnt Umber; but the finishing of black satin is perhaps best borne out by Red. Thus the drapery may be sketched with Indian Red and Black, and Light Red may be used in the higher lights. The Tints for finishing may be composed of White, Black and a little Rose Madder. The middle Tint the same with more Black, and the deepest Tints, Rose Madder, Brown Pink and Black; and reflections with the shade Tint, with the addition of a little Brown Ochre.

FLOWER, FRUIT AND GAME PAINTING IN OIL COLORS.

NOTE.—For general instructions, see article "Instructions in the Art of Painting in Oil Colors," pages 56 to 60.

NOTE.—These tables apply to Water Color Painting as well, with the exception that White is omitted, as the paper itself supplies its place in the latter branch of the art.

NOTE.—Where two or more combinations are given, we arrange them in the order to which we think their merit entitles them; the preferable, of course, appearing first.

- | | |
|--------------------|--|
| Anemones (Purple). | { Ultramarine and Pink Madder for body of flower; shade inside with Purple Madder, adding a little White and Pink Madder for high lights. For the centers: Purple Madder and Indigo, and a little White for lights on stamen. |
| Anemones (Pink). | { Carmine for darkest parts of each flower; for middle tints: Pink Madder and White, adding more White for the high lights.
Center of flowers: Lemon Yellow, Cadmium Yellow and Raw Sienna, adding Indigo for darkest parts of center; stems: Indian Red. |
| Apple Blossoms. | { Paint high lights with pure White; add Rose Madder for middle tints; and same with Carmine, for deepest shades. If a suggestion of Green is seen, use Zinobor Light, with White. |

NOTE.—The Photo-Optican, described on page 55, is used by some of the first portrait artists of this country.

OIL PAINTING—Continued.

FLOWER, FRUIT AND GAME PAINTING IN OIL COLORS—Continued.

Autumn Leaves.	{ Darkest part of leaves: Carmine, Purple Madder. Brighter tints: Scarlet Vermilion, Rose Madder and Carmine. Bright yellow shades: Cadmium Yellow, Strontian Yellow, White, a little Cobalt Blue in places.
Apricots.	{ White and Cadmium Lemon for high lights. Yellow Ochre and Cadmium with White for middle tints. Add Raw Sienna, Citron Yellow for deepest parts, shading with Payne's Grey.
Apples. With this table Apples of all colors, Red, Green, Yellow, etc., can be painted.	{ White. Yellow Ochre. Oxide of Chromium. Rose Madder. Light Red. Cadmium Yellow. Cadmium Orange. Raw Sienna. Raw Umber. Vermilion. Vandyke Brown. Blue Black. Cobalt Blue.
Bluebells.	{ French Ultramarine and White for high lights, joined with Brown Madder for middle tints, to which add Indigo and Purple Madder for deep shades.
Clover (Pink).	{ White and Pink Madder for lightest shades, with a touch of Carmine, Rose Madder added for middle tones; deepest parts above with Carmine.
Cornflower (Blue).	{ High lights: White and Cobalt, adding French Ultramarine for middle tints, shaded with Brown Madder for dark portions.
Cornflower (Pink).	{ White for high lights, shaded with Rose Madder for middle parts, to which add Carmine for deepest shades.
Begonia.	{ Pink Madder, White and Vermilion for high lights. Scarlet, Vermilion, Rose Madder and Carmine, middle tones. Carmine, Brown Madder and Purple Madder for deep shades.
Chrysanthemums (White).	{ White, Lemon Yellow, Indigo and Payne's Grey for shading, and a little deeper Yellow in center of flowers.
Chrysanthemums (Yellow).	{ Cadmium Yellow and Pink Madder, adding Indian Red for the shades.
Chrysanthemums (Red).	{ Purple Madder and Pink Madder for darkest parts of flower; for the light: Pink Madder with a very little Lemon Yellow; and White Lemon Yellow for centers.
Chrysanthemums (Pink).	{ Strontian Yellow and White for centers; Pink Madder and White for lightest shades, adding Crimson Madder for darker parts.
Clematis.	{ White, Cobalt Blue and Pink Madder for high lights, shaded with Ultramarine and Purple Madder for middle and deepest shades.
Canterbury-bells.	{ High lights: White, Cobalt Blue and Rose Madder; tone with Ultramarine for middle shades, and Purple Madder and Indian Red for dark parts.
Carnations (White).	{ High lights: White. Middle and deep tones shaded with Lemon Yellow, Indigo and Payne's Grey.

OIL PAINTING—Continued.

FLOWER, FRUIT AND GAME PAINTING IN OIL COLORS—Continued.

Carnations (Pink).	{ High lights: White and Pink Madder. Middle tones: White and Rose Madder, to which add Carmine for deepest shades.
Carnations (Red).	{ High lights: White and Rose Madder, to which add Carmine for middle tones, and Purple Madder in darkest shades.
Carnations (Yellow).	{ White and Lemon Yellow for high lights, with Cadmium in middle tones, shaded with Indian Red for deep parts.
Cherries.	{ High lights: White shaded with Rose Madder, and Carmine for middle tones, and Purple Madder and Brown Madder for shades.
Calla Lily.	{ High lights: White shaded down to middle tones with Lemon Yellow, Indigo and Payne's Grey, to which add Ivory Black in deep shades. Stamen: White, Lemon Yellow, shaded with Cadmium and Indian Red.
Daffodils.	{ High lights: White and Aureolin. Middle tones: Cadmium Yellow, shaded with Cadmium Orange for deeper shades.
Duck (Wild).	{ Simple palette: Rose Madder, Yellow Ochre, Raw Umber, Indian Red, Cobalt Blue, Vandyke Brown, Emerald Green, Black and White.
Forget-me-nots.	{ Cobalt Blue shaded with White and Rose Madder for high lights, adding Ultramarine and Brown Madder in dark portions; buds: Rose Madder and White.
Grapes (Purple).	{ Rose Madder, Cobalt and White for high lights, to which add Carmine for middle tones, shaded with Purple Madder and Raw Sienna for shades.
Iris (Yellow).	{ Darkest parts of yellow flowers with Raw Sienna and Citron Yellow; for lightest tints: Strontian Yellow and White; for purple-brown petals use Purple Madder, Rose Madder, Violet Carmine and White; shade both parts with Ivory Black. Leaves: Cobalt Green, Yellow Ochre, Raw Sienna, Ivory Black and White.
Iris Purple.	{ White and Permanent Mauve for high lights; shade with Carmine and Purple Madder for middle and deep shades.
Jonquils.	{ High lights: White; shade with Lemon Yellow, Indigo and Payne's Grey to middle and deep tones. Centers: Cadmium, Vermilion, Indian Red and White.
Lemons.	{ High lights: White and Lemon Yellow, shaded with Cadmium Lemon and Yellow Ochre for middle tones, with a touch of Cobalt. Deep shades: Cadmium Yellow, Raw Umber, Indian Red and White.
Lilac (Purple).	{ Buds: Rose Madder, Cobalt and White. High lights in open flower: Cobalt Blue, White and Pink Madder, shaded to deepest tones with Purple Madder and Brown Madder.
Leaves (Delicate Light Green).	{ Gamboge and Sepia. Ultramarine and Naples Yellow. Cobalt and Indian Yellow. Yellow Ochre and Indigo. Zinobor Green, extra light, light and medium.
Leaves (Grey Greens).	{ Yellow Ochre, Cobalt Blue, White and Black. Indigo, Indian Yellow, Black and White.

OIL PAINTING—Continued.

FLOWER, FRUIT AND GAME PAINTING IN OIL COLORS—Continued.

Leaves (Brown Greens and Brown).	{	Aureolin, Burnt Sienna and Indigo.
		Brown Pink.
	{	Burnt Sienna.
		Brown Ochre.
	{	Raw Sienna and Indigo.
		Gamboge and Brown Madder.
	{	Olive Green and Burnt Sienna.
		Indian Yellow and Purple Madder.
	{	Indian Yellow and Rose Madder.
Leaves (Vivid Greens).	{	Indian Yellow, Indigo and Vandyke Brown.
		Italian Pink with either Indigo or Cobalt.
		(French Ultramarine may be substituted in the purer Tint.)
	{	Naples Yellow, to be touched on sharply and thick for strong and catching lights, where they can neither be left or taken out.
	{	Zinober Green, deep.
	{	Emerald Green.
Lilies of the Valley.	{	High lights: White shaded with Lemon Yellow.
		Indigo and Payne's Grey for middle, and Black added for deep tones.
Marguerites.	{	White shaded with Lemon Yellow, Indigo and Payne's Grey.
		For centers: Cadmium Yellow, Lemon Yellow and White.
Marechal Neil Rose.	{	High lights: White, Lemon Yellow and Yellow Ochre.
		Middle tones shaded with Cadmium, to which add Raw Sienna in deep shades.
Mignonette.	{	High lights: White and French Ultramarine, shaded with Rose Madder in middle tones, and Carmine for deep shades.
Mimosa.	{	For the preparation of Mimosa use Raw Sienna with a little Siccatisf, and when dry each little flower should be painted with Lemon Yellow and Cadmium, adding a little White for the high lights, and Payue's Grey, very pale, for the shadows.
Nasturtiums (Red).	{	High lights: White, Vermilion and Rose Madder, with Scarlet Vermilion and Carmine for middle tones, and Purple Madder in deepest shades.
Nasturtiums (Yellow).	{	White and Lemon Yellow in high lights, with Cadmium Orange in middle tones, shaded with Brown Madder for deepest shades.
Oranges.	{	High lights: Pale Cadmium Yellow and White.
		Middle shades: Cadmium Yellow, Cadmium Orange, Vermilion, Raw Umber, Burnt Sienna and White.
	{	Shades: Cadmium Yellow, Orange Vermilion, Raw Umber and Ivory Black.
Pigeon (Wood Pigeon). This simple palette is ample.	{	Rose Madder, Yellow Ochre, Raw Umber, Indian Red, Cobalt Blue, Emerald Green (used pure), White and Black.
Pond Lilies.	{	High lights: White; shade with Cobalt, Indian Yellow, Payne's Grey and Black for middle and deeper shades.
Pears.	{	High lights: Cadmium Yellow, Transparent Oxide of Chromium, Aureolin and White.
		Secondary tints: Add Yellow Ochre.
	{	Shades: Same, with Cobalt Blue and Blue Black.

OIL PAINTING—Continued.

FLOWER, FRUIT AND GAME PAINTING IN OIL COLORS—Continued.

Poppies.	{ Vermilion and Zinc White for lights. Rose Madder, Vermilion and Carmine for middle tints; add Purple Madder for shades.
Pansies (Purple).	{ Darkest parts: Permanent Mauve, Ultramarine and Purple Madder, adding a little White for lighter shades; centers with White and Lemon Yellow.
Plums.	{ High lights: Cobalt Blue, Rose Madder and White, adding Purple Madder and Brown Madder for deep shades.
Rose (Wild Rose).	{ High lights: White, shaded with Rose Madder, Vermilion and Carmine for shades.
Rose (Tea Rose).	{ High lights: White and Anreolin, shaded with Indian Yellow, Citron Yellow, Strontian Yellow and Black for middle and deep shades.
Rose (Red).	{ High lights: White and Rose Madder, with Vermilion and Carmine for middle tones, and Purple Madder and Brown Madder in darkest parts.
Rose Geranium.	{ High lights: White shaded with Rose Madder; shade with Vermilion, Carmine and Purple Madder for middle and deep tones.
Strawberries.	{ High lights: White and Rose Madder, shaded with Vermilion Carmine and Purple Madder for middle and deepest shades; certain lights sometimes require a touch of Cadmium.
Violets	{ Darkest shades: Purple Madder, Carmine and Cobalt; middle tints: Rose Madder, Cobalt Blue, adding White for lights.
Wistaria.	{ High lights: White; shaded with Rose Madder, Vermilion and Cobalt for middle tones, and Carmine, Purple Madder and Ultramarine in darkest shades.

An inability to draw can be overcome by using the Photo-Optican, described on page 55.

SUNDRY ARTICLES USEFUL IN OIL PAINTING.

(See Index.)

Lead Pencils.
Solar Prints on Canvas.
Thumb Tacks.
Compasses and Dividers.
Charcoal.

Water Colors.
Pantographs.
Drawing Boards.
Books on Oil Painting.

GENERAL SUGGESTIONS AND TERMS APPLICABLE TO ALL BRANCHES OF ART.

The Studio should be a room, the window or windows of which face the north; the shades should run from the bottom up, enabling the artist to cut off all the light from one or more windows, and the lower light from the window or windows in use.

The Light should fall on the work over the left shoulder of the artist; there should be no houses opposite to *reflect* light into the studio.

Accents in painting are the after-touches which indicate the strongest markings or details, whether high lights or the deepest shades.

NOTE.—Texture and handling can be best studied from high-class studies.

OIL PAINTING—Continued.

GENERAL SUGGESTIONS AND TERMS APPLICABLE TO ALL BRANCHES OF ART—Continued.

Accessories.—The secondary figures or parts of a picture that serve to give relief to the principal features.

Background.—The retired portion of a picture, which serves to throw the intervening figures or parts into relief.

Breadth.—The characteristic of contiguity as relating to light and shade; more truthfully defined as atmospheric perspective.

Complimentary Colors are those which afford a pleasing contrast to each other.

Foreground refers to that portion of a picture which is represented as being nearest the eye.

Foreshortening is the art of representing the distance between the near and the far parts of an object as greater than a measurement of the drawing proves to be the actual case.

Harmony is the effect of a proper arrangement of colors in a picture.

Hues are obtained by mixing a portion of one color with another.

Local Color is the predominant color of a picture.

Primary Colors are those which are simple, pure, unmixed.

Relief is the term applied to the appearance a figure or a portion of a picture has of standing out in advance of those portions represented as being more distant.

Scale of Color is the range between light and shade as indicated between colors.

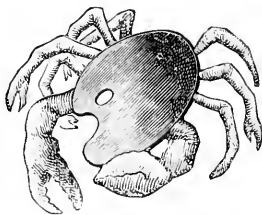
Shade refers to the chromatic composition of a color.

Secondary Colors.—A secondary color is the combination of two primaries in any proportion.

Tertiary Colors.—A tertiary color is the combination of two secondaries in any proportion, or a primary and its complimentary secondary in any proportion.

Tint is the condition of a shade of color which arises from its admixture with water or White.

Tone is the condition of a color in which it *appears* other than it *is*.



CHINA PAINTING.

Materials.

A. LACROIX'S ENAMEL COLORS.



We import direct, consequently our goods are always fresh and desirable.

For Painting on China, Porcelain, Etc.

In Tubes like Moist or Oil Colors, ready for Use.

BLACKS.

		Each.
1249	† Iridium Black (Noir Irididium)	\$ 2 00N
	∞† Ivory Black (Noir d'ivoire)	13 I
	† Raven Black (Noir corbeau).....	15 I

BLUES.

1250	†† Blue No. 29 (Bleu No. 29), a dark, true Blue.....	13N
	†† Common Blue (Bleu ordinaire), a dark Blue	13N
	†† Dark Blue (Bleu fonce), Indigo Blue.....	13N
	° † Deep Blue (Bleu riche), a transparent Sky Blue	15N
	†† Deep Ultramarine (Bleu outremer riche), a delicate light Blue	20N
	†† Delft Blue (Bleu Delft), a dark Grey Blue.....	13N
	†† Light Sky Blue (Bleu ciel clair), Sky Blue	15N
	† Old Blue (Bleu vieux), a dark Indigo Blue.....	13N
	°†† Sky Blue (Bleu ciel azur), Sky Blue, rather deep	15N
	† Victoria Blue (Bleu Victoria), the color of smalt	13N
	† Two-Fire Blue (Bleu a deux feux), a dark, true Blue	17N

BROWNS.

1251	†* Black Brown (Brun noir), a Grey Brown	15 I
	†† Brown No. 3 (Brun 3, bitume), a dark Brown.....	15 I
	°†† Brown No. 4 or 17 (Brun 4 fonce ou 17), a rich Brown	15 I
	° † Brown M or 108 (Brun M ou 108), a warm Seal Brown	15 I
	† Chestnut Brown (Brun marron), a Yellow Brown	15 I
	* Dark Brown (Brun fonce), a deep, warm Brown	15 I
	° † Deep Red Brown (Brun rouge riche), a warm Brown Red	15 I
	† Gilly Flower Brown (Brun Giroflee), a warm Brown	15 I
	* Light Brown (Brun clair), a warm, light Brown	15 I
	* Otter Brown (Brun loutre), a dark Yellow Brown	15 I
	†† Sepia Brown (Brun sepia), a very Yellow Brown.....	15 I
	† Vandyke Brown (Brun Vandyck), a rich, dark Brown	15 I
	†† Yellow Brown (Brun jaune), a warm Yellow Brown	15 I

GREYS.

1252	††† Grey No. 1, Light (Gris No. 1 ou tendre), a warm Grey	15 I
	†† Grey No. 2 (Gris No. 2), a deep Grey	15 I
	†† Neutral Grey (Gris noir), a dark Black Grey.....	15 I
	° † Pearl Grey No. 6 (Gris No. 6, perle), a delicate Pearl Grey	15 I
	°†† Warm Grey (Gris roux), a Russet Grey	15 I
	†† Platinum Grey (Gris de platine) a clear, cool Grey	2 00 I

CHINA PAINTING—Continued.

A. LACROIX'S ENAMEL COLORS—Continued.

GREENS.

1253	††*	Apple Green (Vert pomme), a most delicate light Green	13 T
	†*	Bronze Green (Vert bronze), a vivid Blue Green.....	20 T
	††*	Brown Green No. 6 (Vert No. 6, brun), a warm Yellow-Brown Green.....	15 T
	°	* Chrome Green 3 B (Vert chrome 3 B), a dark, rich Green.....	15 T
	††*	Dark Green No. 7 (Vert No. 7, noir), a deep Green.....	15 T
	††*	Deep Blue Green (Vert bleu riche), a forget-me-not Blue.....	20 T
	††*	Deep Chrome Green (Vert chrome riche), a beautiful Blue Green.....	15 T
	†*	Deep Green (Vert russe), an intense Green.....	15 T
	†*	Duck Green (Vert canard), a rich, deep Green	20 T
	†*	Emerald-stone Green (Vert emeraude), a vivid, true Green.....	15 T
	††*	Grass-Green No. 5 (Vert No. 5, pre), a deep Green.....	15 T
	†*	Green No. 36 T (Vert No. 36 T), a dark, vivid Green	15 T
	°	† Moss Green J (Vert mousse J), a beautiful soft Yellow Green	15 T
	°	† Moss Green V (Vert mousse V), a little more vivid than "J".....	15 T
	*	Night Green (Vert lumiere) a dark, rich Green.....	20 T
	°	† Olive Green (Vert Olive), a warm Yellow Green	15 T
	††*	Sap Green (Vert de Vessie), a warm, rich Green	15 T

REDS.

1254	†	Bengal Rose (Rose Bengale), a rich Pink	15 I
	†*	Bright Red (Ronge brilliant), an Orange Red.....	15 I
	††	Capucine Red (Rouge capucine), an Orange-Brown Red.....	15 I
	††*	Carmine A Light (Carmin tendre A), a delicate Pink	15 G
	†	Carmine No. 1 Light (Carmin tendre No. 1), a delicate Pink	15 G
	††*	Carmine No. 2 (Carmin No. 2), the most serviceable Pink	17 G
	††*	Carmine Deep No. 3 (Carmin No. 3 fonce), a rich Pink.....	20 G
	°	† Carnation No. 1 (Rouge chair No. 1), an Orange Red	15 I
	°	† Carnation No. 2 (Rouge chair No. 2), a deep Yellow Red.....	15 I
	††	† Carnation Deep (Rouge chair fonce), an Orange Yellow Red	15 I
	††*	Crimson Lake (Laque Carminee), a deep Pink	25 I
	†	† Japan Rose (Rose Japon), a Pink of a Purple cast.....	20 I
	†*	† Lake Red (Ronge Laqueux), a deep Brown Red.....	17 I
	††*	Orange Red (Rouge Orange), an Orange Red.....	17 I
	††	† Chinese Rose (Rose de Chine), a warm Pink.....	15 I
	†	† English Rose (Rose Anglais), a rich Pink.....	15 I

PURPLES.

1255	††	Crimson Purple (Pourpre carmoisi), a warm Reddish Purple	45 G
	††	Deep Purple (Pourpre riche), a rich Reddish Purple	40 G
	††	Purple No. 2 (Pourpre No. 2), a Crimson Red	30 G
	°	† Ruby Purple (Pourpre rubis), a rich Carmine Red.....	50 G
	††	Crimson Lake (Laque Carminee), a rich Pink.....	25 G

VIOLETS.

1256	°†	Deep Violet of Gold (Violet d'or fonce), a pansy Purple.....	30 N
	*	† Grey Violet of Iron (Violet de fer teinte grise), a Reddish Brown Grey.....	15 I
	††	† Light Violet of Gold (Violet d'or clair), a lighter Mauve.....	15 N
	††*	† Violet of Iron (Violet de fer) a rich Red Brown	15 I

RELIEF WHITE.

1257	†*	Relief White (Blanc Relief), for light light.....	15 N
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CHINA PAINTING—Continued.

A. LACROIX'S ENAMEL COLORS—Continued.

WHITES.

† Chinese White (Blanc Chinois).....	15 N
† Permanent White (Blanc fixe).....	13 N

YELLOWS.

1258 † Dark Ochre (Ochre fonce) a Yellow Brown	15 I
†† Ivory Yellow (Jaune d'ivoire, 46 de Sevres), a delicate, fine Yellow	15 T
† Jonquil Yellow (Jaune jonquille) a bright Yellow	13 N
† Orange Yellow (Jaune orange), a Reddish Yellow	13 T
† Permanent Yellow (Jaune fixe), a true Yellow	13 T
†† Silver Yellow (Jaune d'argent), a bright Golden Yellow	13 T
†† Yellow for Mixing (Jaune a meler, 41 de Sevres), a delicate Canary Yellow	13 N
†† Yellow Ochre (Ochre Jaune), a Yellow Brown	15 I

FLUX.

1259 † Flux (Fondant general), a medium	13 N
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RELIEF.

1260 † Relief (Relief), over which to lay gold.....	13 N
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COLORS FOR GROUNDING.

These Colors are available for grounds, and will not bear mixing as a rule.

	Each.
1261 ° Celestial Blue [Bleu Celeste], a rather deep Sky Blue.....	\$0 17
Indian Blue [Bleu Indien], a deeper Sky Blue.....	20
Lavender Blue [Bleu Lavande], a delicate Lavender.....	13
Marine Blue [Bleu marin], a deep Sky Blue.....	20
Turquoise Blue [Turquoise bleu], a Sky Blue.....	20
Reddish Brown [Brun modore], a Yellow Brown tinged with Red.....	15
Chamois Brown [Chamois], a Creamy Pink	13
° Carmelite [Carmelite], a beautiful Brown inclined to Red.....	13
° Celadon [Celadon], a beautiful Sea Green	15
° Gold Bud [Bouton d'or], a Golden Yellow.....	15
° Light Coffee [Cafe au lait], as coffee with a great deal of cream	13
° Chromium Water Green [Vert d'eau au chrome], a very delicate Blue.....	13
° Copper Water Green [Vert d'eau au cuivre], a delicate Blue Green	13
Grounding Green [Vert pour fonds], a bright, vivid Blue	15
Turquoise Green [Turquoise Vert], a deep Sky Blue.....	20
Steel Grey [Gris d'acier], a cool Grey.....	13
Turtle Dove Grey [Gris Tourterelle], a Brownish Grey	13
° Isabelle [Isabelle], a deep Cream	13
Fusible Lilac [Lilas Fusible], a Lilac.....	15
Maize [Mais], a Cream Yellow.....	15
° Mauve [Mauve], Pansy Purple.....	25
Coral [Red Corail], a Yellow Red.....	13
° Rose Pompadour [Rose Pompadour], a Pink tinged with Purple	25
Salmon [Saumon], a Reddish Salmon	15
Chinese Yellow [Jaune Chinois], a delicate Pale Yellow	13
Very Fusible Rose [Rose tres Fusible], a perfect Pink.....	15

* Used for painting landscapes, leaves, etc.

† Used for painting flowers, fruit, birds, etc.

†† Used for painting figure subjects, Cupids, draperies, etc.

° The most essential and salable colors in their line. It is from these the retailer should select his stock.

I Iron colors—that is, colors which have an iron basis.

T Colors which have a trace of iron.

N Colors that do not contain any iron.

G Gold colors—that is, colors which have a gold basis.

NOTE.—Tube colors should at all times be kept in a cool place, especially during the warm summer months, to prevent expansion. To prevent the colors forming a deposit and becoming hard in the tubes, it is well to occasionally change their position in the box, and not allow them to remain too long on one side.

CHINA PAINTING—Continued.

A. LACROIX'S ENAMEL COLORS—Continued.

THE FOLLOWING COLORS WILL NOT BEAR MIXING.

Coral Red [Corail].	Chamois Brown [Chamois].
Chrom. Water Green [Vert d'eau au chrome].	Light Coffee [Cafe au lait].
Celadon [Celadon].	Turtle Dove Grey [Gris Tourterelle].
Steel Grey [Gris d'acier].	Fusible Lilac [Lilas Fusible].
Isabelle [Isabelle].	Chinese Yellow [Jaune Chinois].
Salmon [Saumon].	Very Fusible Rose [Rose tres Fusible].
Copper Water Green [Vert d'eau au Cuivre].	

LACROIX'S SAMPLE PLATES.

1262	Sample Slabs, showing principal Colors of Lacroix, fired on China.....	Each, \$2 00
1263	Sample Plates, showing Lacroix's full line of Colors fired, per Complete Set of 3 Plates.....	9 00
1264	Per Set of 2 Plates, showing Painting Colors.....	6 00
1265	Per Single Plate, showing Grounding Colors only.....	3 00
1266	Sample Slab, showing new Colors of Lacroix, fired on China.....	Each, 60

The Classification of Lacroix's Colors, as represented by signs and notes in the above list, represents a ponderous amount of labor, and has been prepared with great care from sources unquestionably to be depended upon. You will note that we have divided the colors into four classes, namely: **"N"** (colors that contain no Iron); **"T"** (colors that show a trace of Iron); **"I"** (colors with an Iron basis), and **"C"** (colors of a Gold basis). Our main reason for so doing is that it may be put down as a general rule that *colors with an Iron basis cannot be mixed with colors of a Gold basis*, simply because oxides of iron and oxides of gold destroy each other. To this rule a few exceptions exist, owing to the fact that the chemical destruction referred to brings about results pleasing to the eye. Now, let us mention, right here, a truth that we cannot too heavily underscore: *China painting must not be attempted on the theory of BLINDLY following out to the letter a collection of UNDIGESTED rules. There is no other branch of art that demands so strongly the constant use of COMMON SENSE.* There is a reason for every rule we give, and by exercising your reasoning power the art will become delightfully clear and you will feel the ground firmly under your feet in any undertaking. You will derive genuine satisfaction from your success and will be afforded the consolation of understanding your failures. Instead of being bewildered and hopeless when the beautiful plate you so confidently sent to the kiln is returned a positive "fright," you will be able to see where you have violated the laws of common sense, and will cease to revile the poor Firer who, in ninety-nine cases out of one hundred, is in no sense to blame.

Let us look for a moment at China Painting and firing from this standpoint.

What is China? It is a hard, baked earthenware, dipped in glaze and fired. This crude definition, while it might startle a potter, will answer our present purpose.

What is Glaze? It is a transparent substance, not unlike varnish; at a certain degree of heat it becomes soft.

What is painting on China? Laying a thin coat of paint on top of the glaze. When the China is fired, the glaze becomes soft; the color sinks down into the glaze; the heat is reduced; the China gradually becomes cold and the glaze freezes over the color—or, in a sense, the paint colors the glaze.

Selecting China.—From the above it will be readily seen that the glaze is an important factor in judging China. Beware of China the surface of which presents the appearance of skimmed milk, which plainly shows a hard, thin, bluish glaze; for common sense would plainly tell us that there is not enough glaze here for our colors to sink down into, aside from the fact that ware of this description is certainly not beautiful or artistic. On the other hand, avoid China that presents too deep or yellow a tint, as in this instance our colors would sink out of sight in the great depth of glaze, or become murky by combination with a glaze that is not transparent.

There is one particular line of China that we must taboo: namely, the beautiful and artistic Belleek. In the hands of the beginner it is as dangerous as it is beautiful.

CHINA PAINTING—Continued.

GENERAL INSTRUCTIONS.

Of course, it goes without saying that China should be free from black specks, cracks, scratches, indentations or blemishes of any kind.

Select China perfectly white, highly polished, of almost any manufacturer; but in judging of its merits, be governed by the above suggestions.

In spite of many printed statements to the contrary, China that has been in use may be safely decorated, provided, of course, the glaze has not been impaired.

Flux, we think, should be discussed independently of China Colors, as it is, in truth, not a color at all, but a medium somewhat akin to China Glaze. Now, for a little common sense again: When the color we lay on the surface of the glaze sinks down into it, a certain amount of the glaze is absorbed by the paint; we then add Flux to the paint to replace that portion of the glaze our paint has absorbed, and for the further reason that Flux helps unite the color with the glaze. If the ware upon which we are painting shows a deep, rich glaze (as, for instance, in the case of the soft paste English ware, and some of the German productions), we add no Flux at all to our paints; while in painting on ordinary ware, the proportion necessary is one part Flux to nine parts paint. As Flux itself is practically colorless, you will understand that it lightens any color with which it is mixed by thinning it. If not used with great care, it will impair the brilliancy and effect of the color with which it is combined; and if used in excess, will cause the work to blister. We will note here that Lacroix sometimes puts more and again less Flux into the same color.

Mixed Colors should be stirred with the brush *when used*; without this precaution they are apt to separate—Light Blue will rise on Dark Blue, Yellow on Green, Yellow on Carnation, etc. It is on the same old principle of “shake the bottle before using.”

Thickness.—China Colors get darker as you increase their thickness; but you must beware of putting on too much color, for if this is done, it will cause the ware to blister in firing, because the glaze can absorb just so much color, and no more. In preference to loading the color on too freely for first firing, it is preferable to fire the first coat and then apply a second.

Temperature of the Painting Room should be rather warm than cold, and never allowed to go below 62° Fahrenheit.

It is a recognized advantage to have an even temperature in the premises where the painting is done, and to have the objects to be decorated, and the materials with which you intend to work, for some time in the painting room before using them. If China objects are taken from cold or moist store-rooms, they should be decorated only after rubbing them with dry cloths, so freeing them from moisture and dust; and it is advantageous, even then, to let them stand for a few hours in the painting room, so as to let them take its temperature.

The reason for this is obvious. Many of the ingredients of the paints, as well as the oils and mediums employed in their manipulation, congeal when cold, and even when they themselves are of a temperature which insures a proper consistency and fluidity, contact with cold China would at once reduce their temperature; and if polarization of some of the component parts did not result, their perfect working properties would certainly be endangered.

Dust can be removed from China with an erasing point, or you can improvise one by driving a needle into the end of an old brush-handle.

The Studio, or working room, should have a north light, and you should so position yourself that the light falls over your left shoulder.

Removing Color After Firing.—*Hydrofluoric Acid* is sometimes used for removing color from China after firing. It is applied with sharpened sticks, and water is allowed to run over the work from time to time, that you may judge what progress you are making. Its fumes are so destructive to the glaze that it is necessary to apply wax to all parts of the article except that portion you intend to remove the color from. The bottle must be kept corked, as its fumes are poisonous. Gloves must be worn to protect the hands, as it will eat into the flesh. Its use is attended with such danger, and the results are so unsatisfactory, that now artists generally prefer to use *Aloe's Fire Color Eraser*, a thin coat of which is applied with a bristle brush. It is allowed to stand a moment and then wiped off with blotting paper, all trace of color coming off with the liquid.

CHINA PAINTING—Continued.

GENERAL INSTRUCTIONS—Continued.

Finish to Work.—If your painting presents a rough, unfinished appearance, it may be greatly improved by dipping a cloth in wet powdered *Pumice Stone* and rubbing freely.

Glazing in China painting is much the same as in Oil; a delicate transparent color is prepared with Flux and oils and applied thinly over such parts of your work as require strengthening as to brilliancy or tone.

Brushes.—Always use as large a brush as the particular work in hand will permit.

Light.—Never allow the sun to shine in the working room, and, as we have before remarked, secure a north light, if possible.

Shading.—Where you cannot obtain the force you desire in the first painting, remember you can greatly strengthen and deepen your shadows by applying a second coat of the same color after first firing.

High Lights.—If for white flowers and drapery, leave the China itself exposed, or substitute a delicate wash of the color next in tone.

In color work, high lights are best produced with light, delicate touches of *Aufsetzweiss Relief* (page 89), which may be delicately tinged with the prevailing color, if desired. *Aufsetzweiss* may be applied so as to stand in slight relief.

Care of Work Before Firing.—Be careful not to spoil the decoration before firing by touching it or allowing the dust, etc., to settle on it. In every case it is advisable to allow the objects decorated to dry in the air before placing them in a muffle. Every new muffle should be fired at least once or twice thoroughly before using it for decorated objects. If the objects to be decorated are not perfectly dry at the time of laying on the color, the moisture will cause little white dots to appear after firing.

Palette Knives.—*Horn Knives* should be used for Gold, White Enamel, Relief Paste, Lacroix Carmines, Purples, Violets, Blues and White; in short, all "G" and "N" colors in list on pages 79-81. Why? Because oxides of iron destroy oxides of gold, and the iron in a knife would affect these colors—or, in the case of White, the iron would rub off and discolor it. A stiff *Steel Knife* is best to use for all other purposes.

Test Plates.—We cannot too strongly urge the beginner to make Test Plates. Take any old plate for the purpose; you will find quite a number in the top of your China closet that "nobody broke." Whether you possess few colors or many, put them all on your Test Plate; apply each entirely too heavily at the outer edge and gradually reduce the thickness of the colors until they entirely disappear toward the middle; put some sign or number in Ivory Black opposite each color—for instance, D. B. G. for Deep Blue Green; C. R. for Capucine Red, or Nos. 1, 2, 3, etc., and enter in a book what each number stands for. Now mix such colors as you think will mix, numbering them in turn with Ivory Black, and when the whole is dry paint a band of Roman Gold around the plate so that it will cross each color, and have the plate fired. To show the great importance of a Test Plate, let us mention a few of the things it will tell you: In the first place, it will give the true color of each paint after firing; then, it will plainly tell you how heavily to apply each color to insure the best results—for instance, you will see that all of your Pinks when heavily applied have an undesirable Purple or Yellow cast, but are beautiful and effective when but a thin or medium coat is laid. On the other hand, your plate will show that most of your Dark Blues look like thin coats of Washing Bluish when painted in thin or medium, and that the best results are obtained with these colors by a moderately heavy application. Turning to your Browns, you will be surprised to observe that in many the color, as well as the tone, is changed by the thickness of color. The band of Gold will give you a chemical analysis of your colors in the shape of a pleasant object lesson, for the presence and amount of iron in the color over which it crosses will be indicated by the degree of discoloration shown in the Gold itself; and the numerous little mixtures you have made will develop many beautiful and useful combinations, giving colors that you would never have dreamed of. A case well in point is the mixing of a Bright Green (Apple Green) with a beautiful Pink (Carmine No. 2); unless told, would you imagine that such a combination would produce

CHINA PAINTING—Continued.

GENERAL INSTRUCTIONS—Continued.

the most beautiful Grey known in China painting? Yet such is the case. We will add one more, and possibly the most important, benefit to be derived from a Test Plate: You are painting from a study, and find yourself at a loss just what color to use to reproduce a certain color found in the study. Turn to your Test Plate and you will not only find the proper color, but will know exactly just how to apply it to secure the desired shade.

DRAWING YOUR DESIGN.—We mention several methods, arranging them in the order which we consider their respective merits entitle them.

With India Ink.—Use either the finest quality of stick India Ink, which you will grind on a China palette, plate or tile, as you would cake Water Colors, or what is preferable, the best quality of liquid India Ink; dip a cloth in turpentine, wipe the China to be decorated, and allow it to dry; sketch in the design with a fine brush, making a delicate, distinct outline. We give this method the preference because not only will the lines disappear in firing, but *they will not be disturbed* by painting backgrounds over them.

With Lithographic Crayon.—Outline the design lightly on the China, as with a lead-pencil. No preparation of the China is required, as the crayon marks readily. Remove false marks with a brush dipped in water. (This design would be obliterated by laying a ground over it.)

With Water Color.—Use Carmine or Rose Madder (a cheap quality prepared) and apply as in the case of India Ink.

Smoke and Turpentine.—In one sense this method should rank first, as the purity of the medium removes all doubt as to whether it will *fire out*. Collect the smoke of an ordinary candle by holding a plate or tile over it; mix this with turpentine, and proceed as with India Ink.

Drying Your Work.—We would much prefer to omit this clause, as we consider it more judicious to allow the work to dry without the assistance of artificial means. Your painting may be quickly dried over an alcohol lamp or by placing the piece in a moderately warm oven. In either case the colors will lose their gloss and possibly change in hue. This, however, need not alarm, as their former brilliancy will be restored by firing.

Cleaning Brushes.—Use turpentine or alcohol. The latter is preferable; keep your alcohol well away from your painting and materials, and corked.

Painting.—The color should be laid in washes and shaded in that way as much as possible. Put your strokes where you want them, and leave them there; if a second stroke is necessary, wait until the first is dry before applying the second. In no instance are more than two strokes required.

When your work displeases you, wipe it out with a rag dipped in turpentine. Be sure the China is left clean and free from color.

Consistency of Color.—Until you are well advanced in China painting you had best content yourself with using the prepared *Tinting and Painting Oils* as the proper mediums with which to thin your colors. The quality of the oils and mediums employed in China painting are of the first importance; and while we have no fault to find with such makes as Osgood or Cooley, we naturally indorse our own oils, knowing their ingredients to be the purest obtainable, while the greatest care and skill are employed in compounding them.

The proportion of Tinting Oil to colors for painting is one-third oil to two-thirds color. If this does not produce the consistency of rich cream, rectified turpentine may be added. The color should flow smoothly from the brush. It should not be tacky, nor should it run.

Setting the Palette.—Put out only such colors as you absolutely require for the piece in hand, and a very small quantity of each. When not using cover well to guard from the greatest enemy of China painting—dust.

Regrinding Colors.—If a tube should become hard, take out from the wrong end, add Tinting Oil and turpentine and grind on a ground glass slab with a muller.

CHINA PAINTING—Continued.

GENERAL INSTRUCTIONS—Continued.

Laying Grounds.—With dust in the room, a well-laid Ground is impossible.

Dip a rag in turpentine and wipe the China; when it dries you will find the surface has a tooth that will take a pencil mark. Transfer your design with good impression paper, or sketch in with India Ink or Water Color, as described on page 85. Mix enough color to safely cover the Ground, as it is almost impossible to exactly match tints. As a mixing medium use either Tinting Oil or Balsam Copaiba (the latter preferred, as it does not dry so quickly), and see that your color so mixed is about the consistency of cream; apply with a tinting or grounding brush, as wide as you can conveniently use, certainly not less than one-half inch. Lay the color as evenly and quickly as possible. Bleud and soften with Dabbers (made of cotton tied up in lineu free from lint) and Stipplers. Do not overwork your color, either in laying or blending it.

Stopping Out.—When your Ground is perfectly dry, paint that portion of your sketched design that you desire to remove the color from with *Tar Paste* thinned with Tar Oil, if too thick, and with Clove Oil, if the Ground is heavy. Remove the Tar Paste with a clean rag; the color will come with the paste, leaving the China exposed.

Another Method for Stopping Out.—After the outline of your design is sketched in with India Ink or Water Color, and the Ground finished, as above described, mix some Oil Color, Mad-dar Lake, with a few drops of Clove Oil or Lavender Oil and use this preparation as you would your Tar Paste.

Still Another Method for Stopping Out.—Sketch in your design with India ink. Paint inside the lines with a mixture of Gum, Whiting and Water. When dry, apply the background over all. If, when the Ground itself is dry, the plaque or vase thus painted be dipped into cold water, it will be found that the stopping out mixture will come away, leaving the space occupied by it clear and clean.

To Erase Dry Color.—When the edge of a leaf or the outline of a design appears ragged, or there are other bits of color you wish to remove, use the Color Eraser.

Painting on Glass with Lacroix Colors requires great care. The most fusible color should be employed and a liberal quantity of Flux used.

NOTE.—We will speak of Oils, Mediums, Brushes and Kilns under their proper headings. We preserve this principle as much as possible that the student may the more readily turn to them for reference.

DESCRIPTION OF LACROIX COLORS.

The table on pages 79-81 did not permit as extended notes on some of the more prominent colors as we desired to give. We, therefore, alphabetically arrange the colors in question below, together with such information as may be serviceable to the amateur.

Apple Green is one of the most serviceable colors in the list. Used pure it is a beautiful tinting color. It mixes perfectly with Silver Yellow and Jonquil Yellow for Yellow Greens; with Deep Blue Green to make Water Green; with Carmine No. 2 for a delicate Grey; with Carmine No. 2 and Chrome Green for Grey Greens in flowers; with Carmine and Purple for hazy atmospheric effects in landscapes. It also mixes well with all Greens. Requires very little Flux.

Aufsetzweiss (Relief White) is used pure for high lights, or mixed with colors to make them lighter and more brilliant. It will not stand in as full relief as White Enamel, and is less transparent, and, therefore, is not effective for jewels, etc.

Browns are all soft colors; mix well with all Greens, Carmines, Reds, Purple and Black, but not with Yellows.

Brown Green.—Shading Green for leaves.

Brown No. 4 or 17.—A deep, rich, reliable color; glazes highly; very desirable for monochrome painting; mixes well with Dark Green No. 7 for leaves and stems; used solid for coloring handles, etc.

CHINA PAINTING—Continued.

DESCRIPTION OF LACROIX COLORS—Continued.

Carmine No. 2 is the test color for the kiln; a little touch of it on the bottom of a plate or cup will reveal the fact of under or overfiring in the kiln. If fired at too low a temperature—Silver takes the upper hand, and the color has a dirty Yellow tint. If, on the contrary, the temperature is too high, the Silver shade is completely destroyed and the Carmine becomes Lilac or Violet.

Carmine No. 3 is a beautiful, but treacherous color; it requires at least $\frac{1}{4}$ th Flux.

Carmine No. 1 seldom requires over $\frac{1}{16}$ th Flux; mixes well with Purples, Blues, Greens and Yellow for Mixing. Used pure for painting flowers and tinting grounds.

Capucine Red.—One of the most beautiful Reds in the line; works well by itself in flower painting and backgrounds alike; requires no Flux, except when applied in thin washes; is friendly in combination with such colors as Deep Red, Brown and Brown No. 4 or 17.

Carnations are a Pink Red or Flesh Red. They are very little affected by fire, but require about $\frac{1}{16}$ th Flux when applied pure in thin washes. Carnation No. 2 mixes well with Ivory Yellow for flesh.

Chrome Green 3 B.—Used pure for touching up and strengthening kindred colors, and mixes well with other Greens, Browns and Ochre.

Dark and Deep Blue.—Serviceable in flower painting; combine well with Ruby Purple, making a pleasing line of Purple, Lilac and Lavender tints.

Deep Red Brown.—Very rich in tone; used pure in flower and ground painting, and when applied in thin washes requires $\frac{1}{4}$ th Flux; is a most serviceable shade for red flowers.

Deep Ultramarine.—Used extensively in flower painting; Flux $\frac{1}{3}$ rd; light washes for bluebells, forget-me-nots, etc.; shades with common Blue and a touch Ruby Purple.

Dark Green No. 7 is effective for producing Olive tints when combined with Yellows; serviceable in making Greys, and is a good glazing color over Reds to soften them.

Deep Blue Green is one of the most useful colors in the line; a perfect forget-me-not Blue, and is extensively used in painting that flower. It has a subduing effect when combined with any of the Greens; also used for shading pink flowers; when applied in thin washes for tinting, Flux $\frac{1}{4}$ th.

Deep Violet of Gold is usually a very unsatisfactory color as it comes from the tube, and requires regrounding, and $\frac{1}{16}$ th Flux. It is almost impossible to keep it in perfect condition, as it runs from the tube seemingly without the slightest provocation; combines perfectly with Ruby Purple and Victoria Blue, producing soft, deep pansy tints, and when combined with Victoria Blue alone gives delicate Purple tones; mixes well with Greens, Browns, Purples and Black.

Dark Ochre.—Little used for flowers; serviceable in painting game and landscapes.

Deep Chrome Green is an excellent glazing color for increasing the brilliancy of Greens, Blues, Purples, Browns and Blacks.

Emerald-stone Green.—A good strong shading Green for all the Dark Greens; will not mix with the Yellows.

English Pink.—Used by many as a substitute for the Carmines.

Grass Green.—A capital glazing Green; mixes well with Yellow for Mixing for foliage.

Grey Violet of Iron.—Serviceable for distant foliage.

Greys all appear to be short in Flux.

Greens are very little affected in color by firing; require regular kiln.

Grey No. 1.—Very delicate; used in shading white flowers and draperies; cannot be used over Pink or Yellows, and will not mix.

CHINA PAINTING—Continued.

DESCRIPTION OF LACROIX COLORS—Continued.

Grey No. 2.—Darker than Grey No. 1.

Grey for Shading.—Equal parts of Carmine No. 2 and Apple Green.

Grounding Colors.—If laid in thin washes for delicate effects, add $\frac{1}{4}$ th Flux. They are all pleasing in color; their selection depends upon the work in hand.

Ivory Black.—Mixes well and used for strongest shading; requires the same fire as Carmines (M. & H. Brunswick Black is superior).

Ivory Yellow.—A delicate tinting color and a good glazer; should be fired once only.

Jonquil Yellow.—An excellent color used pure, and a good mixer for all delicate Greens.

Japan Rose.—A delicate grounding color; apply in thin washes.

Light Sky Blue.—A delicate background color and a capital glazer for Greys and Blues which show a lack of Flux.

Neutral Grey.—A good mixing Grey, and the only Grey that will mix with all the Blues; also mixes with all other colors except Yellows and Red; is the darkest of the Greys, and combines well with Sky Blue for painting sea weeds, fish, etc.

Orange Yellow.—Very strong; peels when laid too heavily; mixes with Reds and Carnations for painting nasturtiums—will not mix with Greens, but does with Browns and Ochre.

Orange Red holds its own very well and is beautiful for nasturtiums, the blossoms of the trumpet flower, chrysanthemums; shade with Capucine Red; second shading, deep Red Brown.

Old Blue.—A very effective ground for gold and useful in monochrome painting; requires two layers and the same number of firings; changes very little in firing, but we hold that the amateur should let all the dark Blues alone as much as possible, as they require very careful handling. Old Blue, as it comes from the tube, seems to be all oil, but if you keep on squeezing, color will come at last. Although it would seem absurd, add oil and mix in the regular way.

Olive Green.—Applied as a thin wash over Purple flowers gives a delicate Grey cast.

Purple No. 2. A delicate color for flower painting; a very safe color.

Pearl Grey.—A delicate background Grey; mixed with a like part of Neutral Grey and a touch of Chrome Green 3 B, a good Grey for flesh is made.

Ruby Purple.—The most beautiful and useful Red known. Applied in thin washes for grounds and strongly fired, it produces a rich Crimson, which may be deepened by a second wash and second firing. Mix with Victoria Blue for Lavender tints—one part Purple, three Blue and one Flux. Also used for shading Pinks and Reds, and strengthening Greens for shading.

Silver Yellow contains no silver; it is composed of Jonquil Yellow and Orange Yellow. It does not harm the Reds and is very useful with them. Used pure in flower and fruit painting, and with a touch of Brown No. 4 or 17 produces a good, safe substitute for Ivory Yellow.

Sky Blue.—A good mixing Blue.

Sepia.—A first cousin to Yellow Brown in the characteristic of poverty of Flux. It fires out badly.

Violet of Iron.—The most useful shading color known for Carnations; combines with Greens, but cannot be applied over them. Mixes with Dark Brown, Purple, Black and Reds.

Yellow Brown.—Poor in Flux; add $\frac{1}{4}$ th. Mixes well with Greens for leaves and foliage. Does not turn Green when applied over Lavenders and Blues to soften them.

Yellow for Mixing.—Must not be mixed with the Iron Reds or Browns. Mixes well with Greens to lighten them. A good glazer for Carmines to add warmth to their tone.

CHINA PAINTING—Continued.

SUPERIOR RELIEF ENAMEL COLORS.

For Painting on Porcelain and Earthenware, in Style of Cloisonné Ware and Longwy Faience.

1268

In Quarter-Ounce Vials. Price, 25c each; per doz., \$2.40.

*Relief White.	Deep Blue Green.	Deep Ruby Purple.
*Light Yellow.	Opaque Green.	*Rose.
Deep Yellow.	Turquoise Green.	*Light Red.
Lemon Yellow.	*Light Turquoise.	Dark Red.
Light Orange Yellow.	Deep Turquoise.	Yellow Brown.
Orange.	Opaque Turquoise.	Brown.
*Light Green.	*Turquoise Blue.	Dark Brown.
Medium Green.	Light Blue.	Extra Deep Brown.
Dark Green.	Deep Blue.	Pearl Grey.
Deep Green.	Dark Blue.	Black.
Apple Green.	*Light Purple.	Crackled White.
Blue Green.	Medium Purple.	

To be mixed with fat oil and turpentine. Used for high lights in relief, to imitate jewels, etc.

NOTE.—We do not believe in colored or tinted relief enamel colors; with your Lacroix colors you can tint *White Enamel* any desired color or shade by adding a sufficient amount of the necessary color to your White Enamel and mixing with the best fat oil.

MÜLLER & HENNIG'S ROYAL DRESDEN CHINA COLORS.

Moist, in Tubes.



For Painting on China, Earthenware, Etc.

Ready for Use.

WHITE.

1269	*Relief White	[Aufsetzweiss]	Per tube, \$0 22
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YEELWS.

1270	Egg Yellow	[Eigelb]	22
	Lemon Yellow	[Citronengelb]	22
	*Canary Yellow	[Canariengelb]	22
	Relief Yellow	[Aufsetzgelb]	22
	*Ivory Yellow	[Elfeubeingelb]	22
	*Albert Yellow	[Albertgelb]	35
	*Yellow Ochre	[Ochergelb]	22

GREENS.

1271	Yellow Green	[Gelbgruen]	25
	Blue Green, light	[Blangruen, hell]	35
	Blue Green, dark	[Blaugruen, dunkel]	35
	Dark Green	[Dunkelgruen]	25
	Shading Green	[Schattirgruen]	25
	Olive Green	[Olivegruen]	25
	Grass Green	[Grasgruen]	25
	Turquoise Green	[Tuerkisgruen]	50
	Black Green	[Schwarzgruen]	25

*The most desirable and salable colors.

CHINA PAINTING—Continued.

MÜLLER & HENNIG'S ROYAL DRESDEN CHINA COLORS—Continued.

BLUES.

1272	Air Blue.....	[Luftblau].....	30
	Dark Blue.....	[Dunkelblau].....	40
	Carmin Blue	[Carminblau].....	60
	*Turquoise Blue.....	[Tuerkisblau].....	50
	Light Blue.....	[Hellblau].....	25
	Banding Blue.....	[Raenderblau].....	22

PINKS AND PURPLES.

1273	Rose Purple.....	[Rosenpurpur].....	40
	Carmin Purple.....	[Carminpurpur].....	60
	Deep Purple.....	[Dunkelpurpur].....	65
	Deep Violet.....	[Violet, dunkel].....	65
	Blue Violet.....	[Blauviolet].....	35
	Rose.....	[Rosa].....	55

REDS.

1274	Yellow Red.....	[Gelbroth].....	22
	*Pompadour Red.....	[Pompador].....	22
	*Brown Red.....	[Braunroth].....	22
	*Flesh Red.....	[Fleischfarbe].....	22
	*Pompadour Red, 1st quality.....	[Pompador, 1. Qualitae'].....	30

BROWNS.

1275	Finishing Brown.....	[Ausarbeitungsbraun].....	25
	*Sepia Brown.....	[Sepiabraun].....	22
	*Yellow Brown.....	[Gelbbraun].....	22
	Dark Brown.....	[Dunkelbraun].....	22
	Chocolate Brown.....	[Chocoladenbraun].....	25
	Chestnut Brown.....	[Kastanienbraun].....	25

BLACKS.

1276	*Brunswick Black.....	[Braunschweiger Schwarz].....	60
	Outlining Black.....	[Schriftschwarz].....	25

GREYS.

1277	Grey for Flowers.....	[Gru fuer Blumen].....	25
	*Grey for Flesh.....	[Gru fuer Fleisch].....	25

FLUX.

1278	Flux.....	[Fluss].....	22
1279	SAMPLE PLATE, showing above line Fired.....		3 00

*These are the only colors the dealer should carry, and the only colors the artist will need. They are used for painting flesh and Dresden flowers.

These colors are used the same as Lacroix's, as described on pages 82-86.

CHINA PAINTING—Continued.

OSCOOD ART SCHOOL ROYAL WORCESTER POWDER COLORS.

Prepared and Ground Extra Fine. Put up in Vials.

For Royal Worcester and Doulton Decoration. Colors in this list fire without a glaze.

WHITE.

		Each.
1280	* <i>Matt White</i> , a pure White; mixes well.....	\$0 30
1281	<i>Parian White</i> , a very superior velvet White	30
1282	<i>Relief White</i> (Aufsetzweiss), for high lights; may be tinted any color	30

BLACK.

1283	<i>Matt Black</i> , a perfect Black; a good mixer	30
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GREY.

1284	<i>Matt Neutral Grey</i> , a cool, delicate Grey; a good mixer.....	30
1285	<i>Matt Warm Grey</i> , a warm, clear Grey; mixes with Olive Green, Yellow Brown, Purple and Brown.....	30

PINK.

1286	<i>Matt Pink</i> , a beautiful, clear Pink; mixes with Light Blue, Lavender Celeste and Matt Brown.....	40
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REDS.

1287	<i>Matt Flesh Red</i> , a warm Flesh Pink	40
1288	<i>Matt Brick Red</i> , a clear Orange Pink	40
1289	* <i>Matt Dry Red</i> , a bright Vermilion Red; a shading Red; mixes with Reds, but not with other colors.....	40

PURPLE.

1290	* <i>Matt Purple</i> , a beautiful, true Purple. By dilution very delicate tones are obtained; add a little Light Blue for the different tints of Lavender; it will mix with Blues, Browns, Greys and Greens; shade with same, full strength.....	50
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VIOLET.

1291	* <i>Matt Violet</i> , a rich Crimson violet shade; mixes with Purple. For darkest shadows use Yellow Brown and Matt Bronze Green No. 1; mixes the same as Purple.....	50
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BLUES.

1292	<i>Matt Light Blue</i> , a rich Sky Blue; mixes with Purple, Brown, Black, Deep Blue and Pink	30
1293	<i>Matt Turquoise Blue</i> , a rich Green Blue; is used in flower painting; mixes with same colors as Light Blue.....	30
1294	<i>Matt Paris Blue</i> , a deep, rich, true Blue; a beautiful grounding color for raised gold work.....	50
1295	<i>Matt Deep Blue</i> , a beautiful Dark Blue; used generally for shading.....	30

NOTE.—Always use separate brushes for Blues to secure purity of color.

GREENS.

1296	* <i>Matt Olive Green</i> , a warm Olive Green; an excellent strong mixing Green for flower painting; mixes with Purples, Browns and Greys; will shade with Browns and Reds.....	30
1297	<i>Matt Blue Green</i> , is really a deep Green Blue; is used for distant flowers and foliage, and should be transparently painted, if applied to tinted grounds; mixes with the same colors as Olive Green.....	30
1298	<i>Matt Dark Green</i> , a vivid Dark Green; mixes with all shades of Brown, by which the russet effects of warm Greens are obtained.....	30
1299	* <i>Matt Light Yellow Green</i> , a bright Yellowish Green; a good local wash for leaves; mixes with Lemon Yellow for Light Green, and Yellow Brown for soft Olive tints	30

CHINA PAINTING—Continued.

OSGOOD ART SCHOOL ROYAL WORCESTER POWDER COLORS—Continued.

BROWNS

1300	<i>Matt Yellow Brown</i> , a Golden Yellow with a suggestion of Brown.....	30
1301	<i>Matt Brown</i> , a rich, warm Brown; mixes with all colors excepting Dark Green and Black	30

YELLOWS.

1302	<i>Matt Lemon Yellow</i> , a delicate Lemon Yellow; it is the lightest of the Yellows, and shades with Gold Yellow; mixes with Light Green.....	30
1303	<i>Matt Gold Yellow</i> , a perfect Golden Yellow, used for shading; will not mix with other colors	30

RELIEF.

1304	<i>Gold Relief Paste</i>	Per val,	50
1304a	<i>Gold Relief Paste</i> , in tubes, ready for use.....		50

NOTE.—The directions to mix and apply Raised Paste will be found on page 97.

OSCOOD'S MATT BRONZE COLORS—Semi-Glazed.

PAINTING AND GROUNDING COLORS.

Ground Extra Fine. Put up in Vials.

		Each.
1305	<i>*Matt Bronze Pink</i> , a perfect Pink; mixes same as Matt Pink; the most beautiful Royal Worcester Pink we know of	\$0 40
1306	<i>Matt Bronze Salmon</i> , a warm Grey; a Royal Worcester Cream; grounding color only	30
1307	<i>*Matt Bronze Lavender</i> , a beautiful true, Lavender; mixes with Pink and Light Blue	50
1308	<i>*Matt Bronze Terra Cotta</i> , No. 1, a light Terra Cotta.....	30
1308a	<i>*Matt Bronze Terra Cotta</i> , No. 2, a deep Red Terra Cotta	30
	An excellent local wash for flowers and leaves; mixes with Bronze Pink.	
1309	<i>*Matt Bronze Celeste</i> , a delicate, beautiful, Blue; the most effective Light Blue we know of; tints well and is used for distant and delicate effects; mixes with Yellow Brown, Bronze Pink, Greys and Browns	30
1310	<i>*Matt Bronze Brown</i> , a rich, dark Brown; mixes with Celadon, Terra Cotta, Lavender, Pink, Purple, Grey and all Greens; shades into Vellum and produces the old Ivory effect, as seen on Doultton	20
1311	<i>*Matt Bronze Green</i> , No. 1, a medium Bronze Green.....	30
1312	<i>*Matt Bronze Green</i> , No. 2, a dark Bronze Green.....	30

Two more beautiful, effective Greens could not be imagined; they mix with all Greens for foliage, and are used for shading leaves same as Brown Green, No. 6, in Lacroix, and are also very artistic as grounds for raised gold work. No. 1 compares so favorably with the genuine metal bronzes that even when the two are upon the same piece of china it makes a valuable acquisition to the color box, to be substituted for bronze effects on handles, etc. After firing, traceries or cloudings of unfluxed Gold can be applied over it with wonderfully artistic results. If used for bands, outline or dot pretty designs on it with Relief Paste, and when fired, cover the Raised Paste with unfluxed Gold or Aloe's Pure Roman Gold; can be applied to the Raised Paste after it is dry, even before firing.

1313	<i>*Matt Bronze Water Green</i> , a most delicate Greenish Blue or Bluish Green; transparent; mixes with Celadon, Bronze Green and Yellow Brown.....	30
1314	<i>Matt Bronze Celadon</i> , a beautiful Blue Grey.....	30
1315	<i>Matt Bronze Yellow</i> , a delicate Light Yellow; one of the most useful colors for modifying Greens for leaves. It is serviceable for flower painting and landscapes; mixes with all Greens	30
1316	<i>Matt Bronze Orange</i> , a rich, warm Yellow.....	30
1317	<i>*Matt Bronze Golden Buff</i> , a warm Cream Yellow with a tinge of Brown; of great service in deepening the tone of the Vellums.	
1318	<i>Matt Bronze Coral Red</i> , the brightest of all the Reds.....	40
1319	<i>*Coalport Green</i> , a very good imitation of this most beautiful Green.....	30

* The most essential and salable colors in this line.

CHINA PAINTING—Continued.

OSGOOD ART SCHOOL SPECIAL GROUNDING COLORS.

1320	<i>Royal Worcester Cream</i> , of a Pinkish Cream cast	\$0 30
1321	* <i>Royal Worcester Ivory Vellum</i> , No. 1, lightest shade	30
1322	<i>Royal Worcester Ivory Vellum</i> , No. 2, darker "	30
1322a	<i>Royal Worcester Doulton Vellum</i> , of a Grey cast	30

The above are used for painting and grounding. Royal Worcester Ivory Vellum, Nos. 1 or 2, can be made as rich and creamy as desired by adding Matt Golden Buff.

Important Notes.—Matt colors can be mixed or shaded with Matt Bronze colors, or *vice versa*. Matt or Matt Bronze colors of this make can be mixed or shaded with Matt, Matt Wax, Semi-Glaze or Gouache colors of any other make, or *vice versa*. Any of the above mentioned line or any of the colors of the several lines can be mixed or shaded with A. Lacroix or Mueller & Henig's colors in tubes, or *vice versa*.

All remarks upon, or directions for using, given in connection with the Osgood line, apply equally as well to all other lines of Matt, Matt Wax, Semi-Glaze or Gouache colors. The reason we direct ourselves especially to the Osgood line is because we consider this line of colors to be better ground, more judiciously fluxed and prepared with greater care than those of any other maker we have tested; and aside from this, their colors and tints are, to our mind, more refined and better adapted to the use of the amateur.

The Royal Worcester Grounding Colors can also be used for painting, and, as they are semi-glazed, are not so easily defaced when applied to table ware in frequent use. Matt colors can be glazed into durability by adding one part of either Matt or Lacroix Flux, mixing thoroughly with four parts of color. They will still retain their opaque, soft effect, which can never be confounded with the high glaze of the tube colors, and will add another variety to the decoration of China. They will all mix with Lacroix colors, which glazes them to a certain degree, and then applied delicately over the vellum ground tint produces still another change. If outlined with paste and gold, two firings are necessary, unless you use Aloe's Pure Roman Gold, as suggested above. The Lacroix colors used *pure and simple* over delicate Royal Worcester ground tints gives a third variety, all differing in effect; and, in case you paint upon a ground tint not previously fired, make due allowance for the absorption of the colors, and the reducing effect caused by firing. They all require a strong fire.

Painting on Glass.—All of these colors can be used for painting on glass with the addition of one-fourth of Matt or Lacroix Flux to three-fourths of color.

DIRECTIONS FOR MIXING AND APPLYING ROYAL WORCESTER COLORS.

For Grounds.—Mix thoroughly with tinting oil; then thin with turpentine to a consistency that flows readily from the brush. Apply with a broad, flat tinting brush (say not less than one-half inch wide) in broad, flat washes. Blend with a deer-foot stippler, or use a dabber made of soft linen with cotton inclosed.

Another Method for Laying Grounds.—Apply grounding oil with a camel hair tinting brush. Let the work stand five minutes, and pad smoothly with a chamois skin pad (the pad can be used any number of times if kept clean and free from dust). It is now ready for the color, which should be dusted on with a piece of fine cotton.

For Painting.—Mix in the same manner as for grounds, and in painting, sketching, design, stopping out, etc., proceed in the same manner as described for Lacroix colors on pages 82 to 86.

* The most essential and salable colors in this line.

CHINA PAINTING—Continued.

WESTERN DECORATING WORKS' MATT WAX COLORS.

(Grinnwald and Busher.)

1323

FOR PAINTING.

	Per vial.		Per vial.
Wax Black G.....	\$0 25	Wax Dark Grey.....	\$0 25
" Dark Blue No. 7.....	30	" Rose Pink.....	30
" Light Blue No. 6.....	25	" Bright Purple.....	40
" Chinese Red.....	25	" Claret.....	40
" Granite Red.....	25	" Blue Violet.....	50
" Brown, Dark.....	25	† " Pansy Purple.....	50
" Light Brown No. 5.....	25	" White.....	20
" Sedge Green No. 10.....	25	" Flux.....	20
" Florentine Green.....	25	" Bronze Brown.....	25
" Olive Green.....	25	† " Chocolate Brown.....	25
† " Shading Green.....	25	" Reseda.....	25
† " Rose Leaf Green.....	25	" Golden Olive.....	25
† " Mix Yellow.....	25	" Carrot Red.....	25
" Citron Yellow.....	25	" Moss Green.....	25
" Orange Yellow.....	25	" Raspberry.....	25
" Shell Grey.....	25	" Evans Yellow.....	25
" Steel Grey.....	25	" Blush.....	25

1324

FOR TINTING.

	Per vial.		Per vial.
† Wax Yellow.....	\$0 25	Wax Light Pompadour Red.....	\$0 25
† " Ivory.....	25	" Old Pink.....	25
" Celadon.....	25	" Celestial Blue.....	25
" Light Pink.....	25	" Dawn.....	25
" Light Blue.....	25	" Sea Gull Grey.....	25
† " Jersey Cream.....	25	" Olive Bronze Green.....	25
" Nile Green.....	25	" Brunswick Brown.....	25
" Fawn.....	25	" Night Green.....	25
" Dove Grey.....	25	† " Old Rose.....	25
" Light Chocolate.....	25	" Smoke.....	25
" Terra Cotta.....	25	" Heliotrope.....	30
" Light Olive.....	25	" Eiffel Red.....	25
† " Pompadour Red.....	25	" Pale Russian Green.....	25
" Buttercup Yellow.....	25	† " Coalport Green.....	25
" Napoleon.....	25	" Lincoln.....	25

Any of the above dark shades can be used for painting except Olive Bronze Green. This color should only be applied by dusting.

SEMI-GLAZE (MATT WAX) COLORS.

1325

SATIN FINISH.

Produce the Worcester and Doulton styles of decoration for table-ware and pieces frequently used; also may be applied to art pieces with Matt Wax Colors in their stead.

	Per vial.		Per vial.
† * Old Ivory.....	\$0 25	Light Pink.....	\$0 25
Evans Yellow.....	25	Nile Green.....	25
† * Doulton Tint.....	25	Smoke.....	25
Buttercup Yellow.....	25	Eiffel Red.....	25
Pale Russian Green.....	25	Light Celestial Blue.....	25
† Wax Yellow.....	25	Light Ivory.....	25

NOTE.—For directions how to use, see page 93.

† Salable and desirable colors in this line.

* Should always be put on in very light tints, and in the moist process. Other colors are to be used in the same manner as tinting colors.

CHINA PAINTING—Continued.

ALOE'S PURE ROMAN GOLD.

You order a trial box, the quality of the gold will do the rest. We are selling our gold daily in forty States. The following are a few reasons why Aloe's Pure Roman Gold is endorsed by China decorators everywhere as superior to all other golds:

- Because it may be applied over raised paste before firing and perfect results obtained.
- Because it is higher in karat than any other gold in the market.
- Because it contains more virgin metal than any other gold in the market.
- Because it may be applied over bright gold with perfect results.
- Because it may be returned if not satisfactory in every particular.
- Because it contains no alloy whatsoever.
- Because it is more readily manipulated than any other gold in the market.
- Because it represents more for the money in quantity than any other gold in the market.
- Because it comes from the kiln Gold Color and may be etched over without first finishing.
- Because it wears better than any other gold in the market.
- Because hair lines may be burnished freely.
- Because it can be fired on glass.

PRICES.

	Per box.	Per doz.
1326 Aloe's Pure Roman Gold	\$0 70	\$8 00
1326a Aloe's Special Gold (unfluxed), for working over color	70	8 00
1327 Aloe's Pure Roman Gold, triple size.....	2 10	24 00

We also manufacture the following goods:

	Per box.	Per doz.
1328 Aloe's Green Gold.....	\$0 75	\$8 00
1329 Aloe's Red Gold.....	75	8 00
1330 Aloe's Brown Gold	75	8 00
1331 Aloe's Silver	70	7 20
1332 Aloe's Dresden Liquid Bright Gold; in boxes, containing one vial of Dresden Liquid Bright Gold and one vial of Essence for Thinning.....	75	6 60
1332a Essence for Thinning, separate.....	Per vial,	25

33 $\frac{1}{3}$ per cent. is saved the decorator who uses Dresden Liquid Gold under Roman Gold.

For sale by artists' material dealers in every city of importance in the United States, or may be had direct of us.

NOTE.—The dozen price is for full dozens only. Directions with each box.

ALOE'S DRESDEN LIQUID BRIGHT GOLD—In Bulk.

1333 Per bottle, containing 10 grains	\$ 2 75
“ “ “ 20 “	5 00
“ “ “ 50 “	12 00

ALOE'S DRESDEN ESSENCE FOR THINNING.

1334 Per bottle, containing 10 grains	\$0 50
“ “ “ 20 “	75

Directions for Using Aloe's Dresden Liquid Bright Gold.—Genuine Dresden Liquid Bright Gold is best kept in corked bottles in a dark place at moderate temperature, and to be protected from dust and other impurities.

Liquid Bright Gold which has thickened on the palette or in the cup is to be thinned with a very small quantity of Thinning Essence—just sufficient to make it again readily flow from the brush.

If it is necessary to fill other bottles or vessels from the original ones, be careful that the same are perfectly dry and clean. Do not thin with anything else but our Thinning Essence. Too much thinning will spoil the rich Gold color and diminish the faculty of the Gold to stand a high temperature in firing. Do not use Liquid Bright Gold brushes for anything else but the Gold.

Apply a good even coat, working over as little as possible. If you wish to wipe it off do so thoroughly with a damp cloth. If you use turpentine for this purpose, the firing will bring out a Purple stain where the Gold was.

CHINA PAINTING—Continued.

COOLEY'S GOLD ON GLASS SLABS.

	Per box.		Per box.
1335 Roman.....	\$0 75	Green Gold Brouze.....	\$0 75
Roman, large.....	2 25	Red " ".....	75
Hard or Unfluxed.....	75	Silver Bronze.....	75
Green Gold.....	75		

WYNNE'S ROMAN GOLD.

1336 Wynne's Roman Gold.....	Per box, \$0 75
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J. MARSCHINC & CO.'S SUPERIOR MATT OR BURNISH GOLD.

	Per box.
1337 Roman Gold.....	\$0 75
Green ".....	75
Red ".....	75
Special " (unfluxed), for working over color.....	75
Roman " large size.....	2 25

J. MARSCHINC & CO.'S LIQUID BRIGHT GOLD.

	Per box.
1338 In packages containing one vial of Liquid Gold and one vial of Essence for Thinning....	\$0 75

HASBURG'S ROMAN GOLD.

1339 Hasburg's Roman Gold.....	Per box, \$0 75
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OSCOOD ART SCHOOL GOLD.

	Per box.
1340 Matt or Burnished Gold.....	\$1 00
Hard, Unfluxed Gold, for over color exclusively.....	1 00
Green.....	1 00
Red.....	1 00

WALTER'S ROMAN GOLD.

(Ceramic Gold Works.)

	Per box.		Per box.
1341 Roman.....	\$0 75	Red.....	\$0 75
Roman, large.....	2 25	Brown.....	75
Special (unfluxed).....	75	Silver.....	75
Green.....	75		

How to Mix and Apply Roman and Other Golds.—Open the box, take out the slab and transfer the Gold to a larger one for convenience in mixing; put two or three drops of turpentine on the Gold and mix thoroughly with a palette knife before putting in the gold brush (if the Gold should get a little hard, warm slightly after putting the turpentine in). Be sure and fill the brush with the Gold, working out the surplus on a palette. Use brushes that have never been used for colors, and keep a special palette, muller, slab, and brushes for Gold, to prevent waste from cleaning. In applying the Gold to China, cover the ware with a thin but even coating. Putting on a thick coat is of no benefit, as it is opaque and the surface only is seen. It must be no wash, however, but a solid even coat. As the turpentine evaporates quickly from the Gold in working, a little should be added frequently and the Gold remixed. The brushes also require frequent dipping in turpentine to keep the hairs all free and open. Use a large flat brush for broad surfaces, putting the Gold on as smoothly and evenly as possible.

NOTE.—In mixing Golds use Rectified Turpentine only.

More Elaborate Directions.—Dust is ruinous to gold decorations. Roman or Matt Golds may be brought to a half-finish by burnishing with a glass brush after firing, or to a full finish by using the Agate burnisher. If you desire to further embellish a Roman Gold ground you can *etch* over it with a pointed Agate burnisher. Scroll designs executed in this manner are very effective.

CHINA PAINTING—Continued.

Stipple Gold Effects or Cloudings of Gold are produced by applying the Gold with Fitch hair stipplers—dabbing it on in irregular designs.

Spattered Gold Effects are often very effective and artistic. They are produced by crushing the hairs of a medium size bristle brush so that the bristles stand out in every direction. Then roll it gently in *Dresden Liquid Bright Gold*, so that the ends of the hairs are covered, but not clogged. Touch it to the surface of the ware as though you were stippling it.

All Golds should be fired rose color heat. If Roman Golds are not satisfactory after first firing, regild and fire again. If Gold blisters in firing, rub down with finest emery cloth before regilding.

PASTE FOR RAISED GOLD.

1342	Aloe's Superior Raised Paste, extra fine.....	Per vial, \$0 25
1343	Osgood's Paste for Raised Gold,.....	" 30
1344	Osgood's " " " (mixed ready for use)....	Per tube, 50
1345	Hancock's Raised Paste for Gold	Per vial, 25
1346	Cooley's " " " "	" 25
1347	Marsching's " " " "	" 25
1347a	Relief Paste for Raised Gold	" 20

Directions for Using Raised (or Relief) Paste.—We hold that Raised Paste should be mixed with the best fat oil only. Mix with a horn knife on a ground glass slab to the consistency of smooth paste. The paste should be thoroughly ground and absolutely free from grit. Some authorities claim that the addition of a little tar oil is beneficial, but we do not feel friendly towards tar oil for any purpose. It is well, however, when after the paste is mixed, but before using, to thin it with a few drops of rectified turpentine and rework it with the knife until of the proper consistency again, as this insures a more perfect mixture of the two ingredients. The evaporation of the turpentine may be hastened by breathing on the paste as you mix it.

It should be applied with long, thin liners, tracers or riggers, expressly prepared for the purpose (see No. 1432). Dots are best applied with small, short hair brushes (see No. 1436).

It may be safely applied over color or on the bare China, but the ware must be clean and dry.

For effects in high relief, a second layer may be applied over the first while it is partially dry.

Breaks in the paste, from chipping in first firing, may be repaired by another application for next firing, but this mending is seldom satisfactory.

Gold Over Paste is applied after firing, solidly, leaving no trace of the paste showing. Unfluxed Gold is used for this purpose. Aloe's Pure Roman Gold, however, may be applied to Raised Paste when hard; dry before firing and perfect results obtained; and either our Roman or Special (unfluxed) are suitable for paste that has been fired.

Use of Raised Paste in Decoration.—For laying scrolls or designs over color or on the white China; for outlining flowers or designs in either Royal Worcester, Doulton or Lacroix painting, and for dividing tints, etc.

RELIEF WHITE ENAMEL.

		Per vial.	Per doz.
1348	Aloe's Superior White Enamel, extra.....	\$0 25	\$3 00
1349	Marsching's White Enamel, hard.....	25	2 40
1350	Marsching's " " medium	25	2 40
1351	Sartorius' " " "	25	2 40
1352	Hancock's " " "	25	2 40

Directions for Using White Enamels.—Relief Enamel is treated in the same manner as Relief Paste, except that its application is different, which consists in applying it in dots, in imitation of jewels. It can be dropped into any size or form. Use a horn knife in mixing enamel, and fire once only. With good White Enamel and your Lacroix tubes you are independent of colored enamels, for by adding color to your White Enamel you can at once produce any shade of enamel desired; for instance, a little Deep Blue Green, mixed with White Enamel, will give you Turquoise or Light Blue Enamel; while with Carmine No. 2 you can produce almost any shade of Pink Enamel, etc., etc.

Other uses for enamel in decoration will suggest themselves as you progress.

CHINA PAINTING—Continued.



ONE OUNCE.

OILS AND MEDIUMS FOR CHINA PAINTING.

NOTE.—While in Oil Painting effective work can be done even when indifferent or poor oils and mediums are used, in China Painting satisfactory results are impossible unless the oils and mediums used are pure. We have always prided ourselves on the superiority of our productions, and their high standard is now too universally acknowledged to call for further comment here.

			Per Bottle.	Per doz Bottles.
1353	*†Aloe's Superior	Rectified Turpentine, 1 oz	\$0 10	\$ 1 00
1354	Aloe's "	" " " 2 oz	15	1 50
1355	Aloe's "	Fat Oil of Turpentine, "Essence Grasse," 1 oz	30	3 00
1356	*†Aloe's "	" " " 1½ oz	20	2 00
1357	Aloe's "	Oil of Lavender, 1 oz	25	2 50
1358	* Aloe's "	" " " ½ oz	20	2 00
1359	Aloe's "	Oil of Cloves, 1 oz	25	2 50
1360	Aloe's "	" " " ½ oz	20	2 00
1361	Aloe's "	Balsam Copaiba, 1 oz	25	2 50
1362	* Aloe's "	" " " ½ oz	20	2 00
1363	* Aloe's "	Grounding Oil, to dust on dry colors, 1 oz	30	3 00
1364	Aloe's "	" " " " " " " ½ oz	20	2 00
1365	*†Aloe's "	Tinting Oil, to mix colors with, 1 oz	25	3 00
1366	Aloe's "	Tar Oil, 1 oz	15	1 50
1367	Aloe's "	Aviseed Oil, 1 oz	30	3 00
1368	Aloe's "	" " " ½ oz	20	2 00
1369	Aloe's	Fired Color Eraser	75	9 00
1370	Genuine	Dresden Thick Oil, 1 oz	35	4 20
1371	Genuine	" " " ½ oz	20	2 40
1372		Essence for thinning Dresden Liquid Bright Gold	25	3 00
1373		Cooley's Tinting Oil	25	3 00
1374	Osgood's	" " "	30	3 60
1375	Osgood's	Tar Oil	15	1 50
1376	Sartorius'	Grounding Oil	30	3 60
1377	Osgood's	Tar Paste	25	3 00
1378		Hydrofluoric Acid	1 00	12 00

* These are the oils and mediums a dealer should carry.

† These are all the oils the amateur really needs.

CHINA PAINTING—Continued.

NOTES.

Rectified Turpentine should be used for mixing Gold and Gold colors; also for cleaning brush for same.

Fat Oil is used in mixing Lacroix colors, Dresden colors, Royal Worcester colors, Raised Paste and Relief Enamel (see page 97).

Oil of Lavender.—Used as a drier and thinner.

Oil of Cloves.—Used in mixing LaCroix, Dresden and Royal Worcester colors.

Balsam Copaiba.—Sometimes substituted for Tinting Oil. Many prefer it.

Grounding Oil is applied to the ware and the dry colors dusted on for Royal Worcester effects (see page 93).

Tinting Oil is a combination of several oils, used in mixing Lacroix, Dresden and Royal Worcester colors. The most valuable oil in the list for the amateur.

Aniseed Oil.—Sometimes substituted for Oil of Cloves.

Aloe's Fired Color Eraser.—For removing color after firing (see page 83).

Dresden Thick Oil.—Sometimes substituted for Grounding Oil, and frequently used for mixing.

Essence for Thinning Bright Gold (see page 95).

Tar Oil.—Sometimes used with Fat Oil for mixing Raised Paste (page 97), and really valuable for thinning Tar Paste.

Tar Paste.—For removing dry color from China (see page 86).

Hydrofluoric Acid.—For removing fired color from China (see page 83).

CLASS JEWELS.

For Ornamenting Vases, Glass Shades, Novelties, Etc.



Nos. 2,

4,

6,

8,

10,

1379

SAPPHIRES,	RUBIES,	TURQUOISES,	CRYSTALS,
AMETHYSTS,	TOPAZES,	OPALS,	EMERALDS,
PEARLS,	CORALS,	GOLD,	SILVER,
BRONZE,	IRIDESCENT CRYSTAL,	ROSE,	Etc.

Assorted Sizes, Nos. 1 to 10 Per doz., \$0 10

1380 Cement for Fastening Jewels Per vial, 25

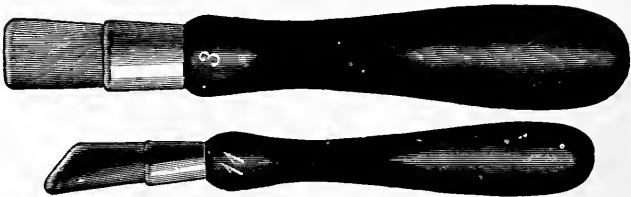
Directions for Applying Jewels.—Jewels are fastened to China with either Relief Paste, Cement for Jewels, or ordinary China Mending Cement. In the case of the two former a dot of the cement is touched to the ware and the jewel pressed down upon it and joined; but as too strong a fire will melt or displace the jewels, we prefer to fasten the jewels with ordinary China Mending Cement, after the decoration is finished.

CHINA MENDING CEMENT.

1381 This preparation will mend anything that is broken, and will hold like grim death, and is pronounced by experts to be the best article ever invented for the purpose. Any one can use it. It is in liquid form and always ready for use, requiring no heating, but sets quickly. Per bottle, \$0 25

CHINA PAINTING—Continued.

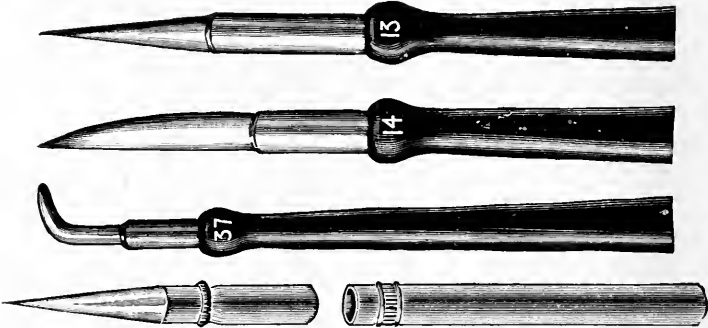
BLOOD STONE BURNISHERS.



- | | | | |
|------|---------|---|--------|
| | | | Each. |
| 1382 | No. 3. | 7-inch, Polished Wood Handle (for burnishing Gold on flat surfaces) | \$1 60 |
| 1383 | No. 11. | 7-inch, Polished Wood Handle (for burnishing around handles, etc) | 1 00 |

ACATE BURNISHERS.

For Roman Gold.



- | | | | |
|------|---------|---|--------|
| | | | Each. |
| 1384 | No. 13. | For Tracing (see page 96) | \$0 60 |
| 1385 | No. 14. | For Tracing and Burnishing | 75 |
| 1386 | No. 37. | For Burnishing | 75 |
| 1387 | Pocket. | For Etching and Tracing (see page 96) | 35 |

OUTFIT OF BURNISHING TOOLS.

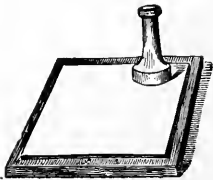
A paste-board box containing:

- | | |
|----------------------------------|-----------------------------|
| 1 Glass Brush, for matting Gold. | 2 Leather (cleaning) Pads. |
| 1 Pointed Agate Burnisher. | 1 Bottle Burnisher's Putty. |
| 1 Flat Blood Stone Burnisher. | 1 Bottle Emory Flour. |

- | | | |
|------|-------------|--------|
| 1388 | Price | \$3 00 |
|------|-------------|--------|

GROUND GLASS SLABS.

For Mixing and Grinding Colors, Enamel, Paste, Etc.



- | | THIN PLATE. | | EXTRA THICK. | | |
|------|-------------|--------|--------------|-----------|--------|
| | | Each. | | Each. | |
| 1389 | 4x 4 | \$0 10 | 1390 | 4x4 | \$0 20 |
| | 6x 6 | 15 | | 6x6 | 30 |
| | 8x 8 | 20 | | 8x8 | 40 |
| | 10x10 | 30 | | | |

CHINA PAINTING—Continued.

HORN PALETTE KNIVES.



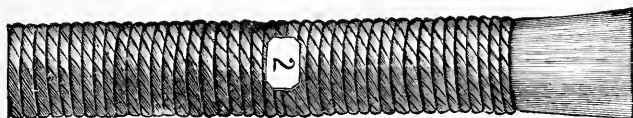
No. 1389.

		Each.	Per doz.
1391	4 inches long	\$0 10	\$1 00
	5 " "	15	1 20
	6 " "	20	1 75
	7½ " "	25	2 50
	9 " "	30	3 00
	No. 0. "Petite"—for working Gold	10	1 00

Horn Palette Knives are used for mixing Gold, Gold colors, Relief Paste, and Relief Enamel (see pages 84, 97).

CLASS BRUSHES.

For Scouring and Matting Gold.



Original Thickness and Half Original Length.

		Each
1392	No. 1. ½ inch thick.	\$0 25
	No. 2. ¾ " "	50
	No. 3. 1 " "	75

For Burnishing Roman and other Golds, see page 96.

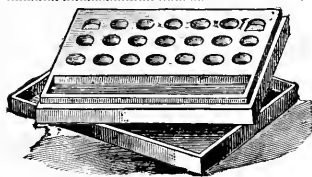
CLASS MULLERS.

To Grind the Color, Paste, Etc., with on the Ground Glass Slab.

	Each.		Each.
1393 1 inch diameter	\$0 15	2 inch diameter	\$0 35
1¼ " "	20	2½ " "	55
1½ " "	25	Per lb.	70

CHINA PALETTE WITH COVER.

For Mixing Colors, and Arranged so as to Protect Colors From Dust When Not in Use.



No. 1394.

	Each.	Per doz.
1394	With 21 Recesses and Cover....	\$0 75 \$9 00



No. 1395.

ALOE'S CERAMIC ALCOHOL LAMP.

For Drying Color, Etc.

	For Drying Color, Etc.	Each.
1395	2-ounce.....	\$0 25
	4-ounce.....	35

(See article "Drying Your Work," page 85.)

TRACING POINTS.

1396	Price.....	Each, \$0 10
------	------------	--------------

CHINA PAINTING—Continued.

COLOR ERASERS.



No. 1397.

1397 Curved Color Eraser..... Each, \$0 40



No. 1398.

1398 Straight Color Eraser..... Each, \$0 40



No. 1399.

1399 Color Eraser, with Pin..... Each, \$0 50

Color Erasers are used for erasing dry color, removing dust, etc. (See pages 83, 86.)



No. 1400.

LINING AND BANDING WHEELS.

To Place on Tables.

1400 6 $\frac{3}{4}$ inches diameter..... Each, \$5 00

For Putting Gold or Color Bands on China.

PATENT SELF-CENTERING CHINA DECORATOR'S WHEEL.

(Improved.)

The above is made of nickel-plated or japanned iron, and is the most accurate arrangement in the market for drawing lines on vases, saucers, etc. By using this, the most inexperienced decorator is enabled, with a little practice, to draw lines with the utmost accuracy. This new China Wheel has the advantage over the former one, in that the disk and arm-rest can be placed at different angles and made stationary, thus acting as a regular easel.



No. 1401.

1401 Price, complete, nickel-plated..... Each. \$20 00

1402 Price, " japanned..... 15 00

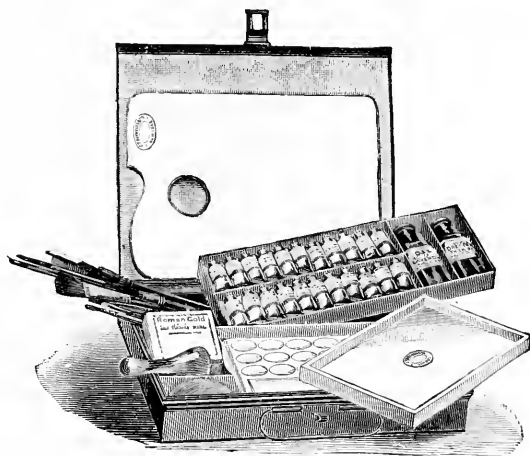
SUNDRY ARTICLES USED IN CHINA PAINTING.

Lithographic Crayons, for drawing on Porcelain	See Index.
Lithographic Pencils.....	"
Crayon Holders.....	"
Lead Pencils.....	"
Tracing Paper.....	"
Transfer Paper	"
Palette Knives, Steel.....	"
Hand-Books on China Painting.....	"
China Palettes, Oval and Square	"
Articles for Decoration.....	"
Palette Cups.....	"
Water Colors.....	"
India Ink.....	"
Turpentine in Bulk.....	"
Photographing on China	"

CHINA PAINTING—Continued.

ALOE'S SUPERIOR JAPANNED TIN BOXES FOR LACROIX'S TUBE COLORS.

Polished White Linings.



- | | | | | | | | | | |
|-------------|--------|---------------|----------------------|------------------------------|------------------------------|-------|--|--|--------|
| | | | | | | | | | Each. |
| 1403 | No. 1. | 16 Divisions, | 11 inches long, | 6 $\frac{1}{2}$ inches wide, | 1 $\frac{1}{2}$ inches deep, | empty | | | \$1 50 |
| 1404 | No. 2. | 24 " " | 10 " " | 8 $\frac{1}{4}$ " " | 1 $\frac{5}{8}$ " " | | | | 2 00 |
| 1405 | No. 3. | 28 " " | 12 $\frac{3}{8}$ " " | 8 $\frac{1}{4}$ " " | 1 $\frac{5}{8}$ " " | | | | 2 50 |
- 1406** No. 1. 16 Divisions, fitted. Containing 16 tubes Lacroix's vitrifiable colors; 9 camel hair pencils for shading, tracing and outlining; 2 stipplers; 1 grounding brush; horn and steel palette knives; fat oil of turpentine; oil of lavender; china slab with 21 holes, slant and cover; transfer and tracing papers; sketching crayons; studies, etc.....Each, \$7 25
- 1407** No. 2. 24 Divisions, fitted. Containing 24 tubes Lacroix's vitrifiable colors; 13 camel hair pencils for shading, tracing and outlining; 3 stipplers; 1 grounding brush; horn and steel palette knives; fat oil of turpentine; oil of lavender; china slab with 21 holes, slant and cover; transfer and tracing papers; sketching crayons; studies, etc.....Each, \$9 00
- 1408** No. 3. 28 Divisions, fitted. Containing 28 Lacroix's vitrifiable colors; 13 camel hair pencils for shading, tracing and outlining; 4 stipplers; 1 grounding brush; horn and steel palette knives; fat oil of turpentine; oil of lavender; china slab with 21 holes, slant and cover; transfer and tracing papers; sketching crayons; studies, etc.....Each, \$12 00

CHINA STUDIES AND DESIGNS.

An unsurpassed collection adapted for studies on China, from the best artists, selected with care. All the latest novelties received upon publication.

CHINA PAINTING—Continued.

THE WILKE CHINA KILN.

For Firing Decorated China with Gas or Gasoline.



No matter how poor the gas—how high or low the pressure—success guaranteed. Not an ounce of fire-brick or tile employed in its construction.

Made in six sizes, viz.:

Size.	Diam.	Height.	Weight.	Price.
1409 No. 1	10 inches by 12 inches Firing Pot		150 lbs.	\$ 20 00
1410 No. 2	12 "	14 "	250 "	25 00
1411 No. 3	14 "	18 "	350 "	35 00
1412 No. 4	15 "	19 "	450 "	45 00
1413 No. 5	18 "	20 "	600 "	75 00
1414 No. 6	26 "	20 "	1200 "	125 00

1415 Gasoline Attachment for any of above Kilns..... \$3 00

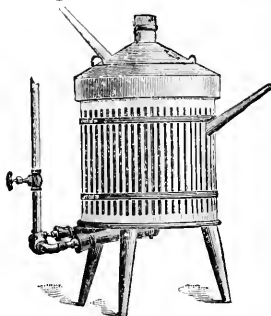
This apparatus can be attached to any Wilke Gas Kiln.

Directions for firing furnished with each kiln sold, by which any amateur can fire successfully without any previous knowledge of this branch of the work.

CHINA PAINTING—Continued.

FITCH GAS KILN.

For Firing Decorated China and Glass.



Complete with burner and stilts. Accommodates 14 large plates, or 25 to 35 pieces tea set size, firing the ware in two hours or less; consuming 60 to 80 feet of gas per hour. In adding this kiln to our list it brings them all within the reach of every amateur or professional decorator of glass or china who would perfect their own work.

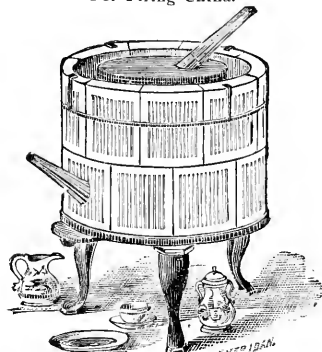
Requires no pipe to connect it with chimney, as it is smokeless; has been fully tested with gas generally in use. Can be set up in studio, laundry, cellar, or any place convenient. The external heat generated equals that from a stove.

Size of pot or oven 12x14 inches. Weight, boxed, 300 pounds.

1416 Price Each, \$25 00

FITCH CHARCOAL KILN.

For Firing China.



No.	Size.	Weight.	Each.
1417 1	10x12	250	\$15 00
	Fires from 15 to 25 pieces.		
1418 2	12x16	300	20 00
	Fires from 25 to 40 pieces.		

No.	Size	Weight.	Each.
1419 2½	15x16	400	\$25 00
	Fires from 40 to 70 pieces.		
1420 4	18x26	900	50 00
	Fires from 80 to 125 pieces.		

Directions for use, charcoal lighter, and one gross stilts accompany each kiln.

This kiln is simple in construction, being made of cast-iron and fire-brick, and occupying but small space. It can be placed in use without pipe, chimney or flue; fired in a woodshed or on the open ground, or can be set up in an open chimney and used in the house.

1421 Stilts, different sizes..... 15 to 35 cts. per dozen.

CHINA PAINTING—Continued.

Directions for Firing China are furnished with every kiln, and while those who do not fire themselves will not be particularly interested, we feel that our work would not be complete without a few remarks on the subject.

Kilns must be kept absolutely clean and the ware fired free from all dust, price-marks, either in ink or on labels, etc.

Any surrounding dampness will render satisfactory results almost impossible.

Fire trays, large dishes and plates in an upright position, and stool your kiln so that no two pieces of ware will touch each other at the sides, top or bottom of the pot. Pieces requiring the strongest fire should be placed at the bottom. Small articles can be safely fired inside of larger ones, using great care in placing your stilts.

Heat and cool your kiln gradually. Remember, China expands in firing.

Distribute small pieces of broken China painted with Carmine No. 2 all through your kiln to locate the degrees of heat in different parts, as Carmine underfired is Yellow Red in color; overfired, of a Violet tint in color; and a perfect Pink is developed by rose heat.

SUPERIOR QUALITY FRENCH BRUSHES.

Especially Manufactured for Painting on China, Etc.

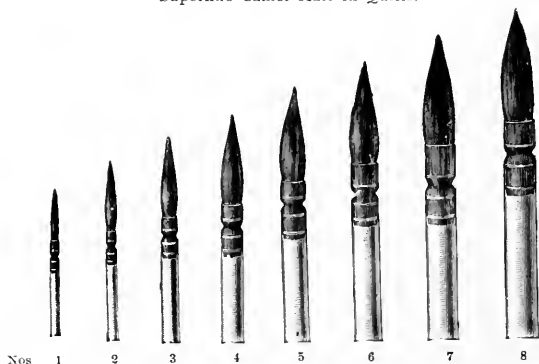
The following illustrations of Pencils and Brushes have been made especially for us from original drawings of our goods.

In ordering brushes, it is only necessary to mention the kind wanted and the numbers of the respective sizes, as the illustrations show the exact length of hair and general style of the original article.

The quills are compressed to obviate the possibility of hairs dropping out, and the stock is the purest to be obtained.

POINTED SHADERS.

Superfine Camel Hair in Quills.



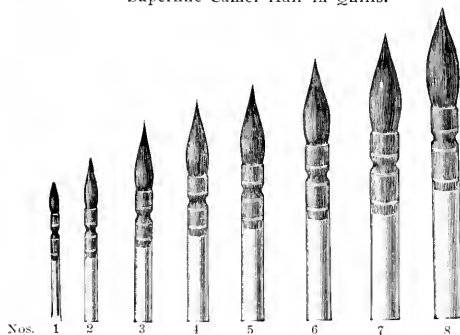
		Each.	Per doz.			Each.	Per doz.
1422	No. 1	\$0 05	\$0 45	No. 5	\$0 08	\$0 80	
	No. 2	05	50	No. 6	09	90	
	No. 3	06	60	No. 7	09	95	
	No. 4	07	70	No. 8	10	1 00	
	Assorted sizes						75

A most serviceable brush for painting.

CHINA PAINTING—Continued.

SHORT PAINTING BRUSHES.

Superfine Camel Hair in Quills.



		Each.	Per doz.			Each.	Per doz.
1423	No. 1	\$0 05	\$0 45	No. 5	.....	\$0 08	\$0 80
	No. 2	05	50	No. 6	.....	09	90
	No. 3	06	60	No. 7	.....	09	95
	No. 4	07	70	No. 8	.....	10	1 00
	Assorted sizes						75

This is the most popular painting brush in the line.

SCROLLERS.

Superfine Camel Hair in Quills.



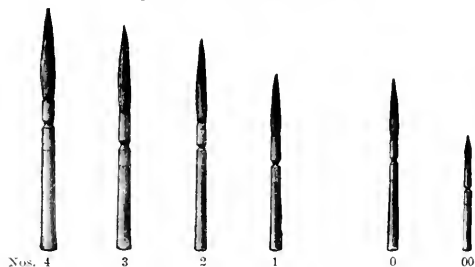
For Lining and Banding.

		Each.	Per doz.			Each.	Per doz.
1424	No. 1	\$0 05	\$0 45	No. 5	.....	\$0 08	\$0 80
	No. 2	05	50	No. 6	.....	09	90
	No. 3	06	60	No. 7	.....	09	95
	No. 4	07	70	No. 8	.....	10	1 00
	Assorted						75

CHINA PAINTING—Continued.

MINIATURE PENCILS.

Superfine Camel Hair in Quills.



For Painting Small Details, Etc.

	Each.	Per doz.		Each.	Per doz.
1425 No. 00	\$0 03	\$0 25	No. 2	\$0 04	\$0 30
No. 0	03	25	No. 3	05	40
No. 1	03	27	No. 4	05	50
Assorted					30

TRACERS.

Superfine Camel Hair in Quills.



For Painting, Tracing and Lining.

	Each.	Per doz.		Each.	Per doz.
1426 No. 1	\$0 05	\$0 45	No. 5	\$0 08	\$0 80
No. 2	05	50	No. 6	09	90
No. 3	06	60	No. 7	09	95
No. 4	07	70	No. 8	10	1 00
Assorted sizes					75

HAVILAND TRACER.

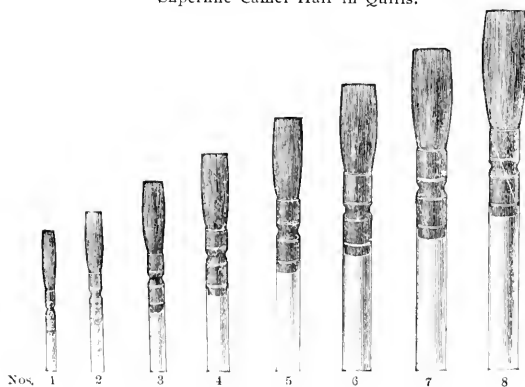


1426a Each	\$0 10	Per dozen	\$1 00
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CHINA PAINTING—Continued.

SQUARE SHADERS.

Superfine Camel Hair in Quills.

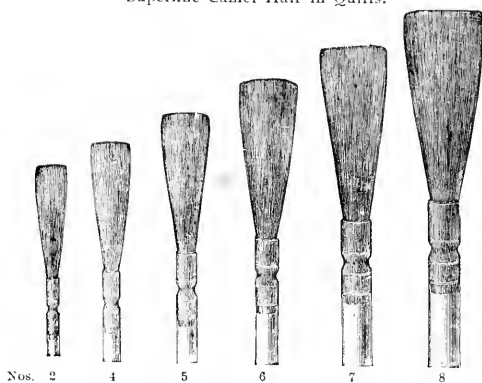


For Shading and Painting.

	Each.	Per doz.		Each.	Per doz.
1427 No. 1	\$0 05	\$0 45	No. 5	\$0 08	\$0 80
No. 2	05	50	No. 6	09	90
No. 3	06	60	No. 7	09	95
No. 4	07	70	No. 8	10	1 00
Assorted					75

SQUARE LINERS.

Superfine Camel Hair in Quills.



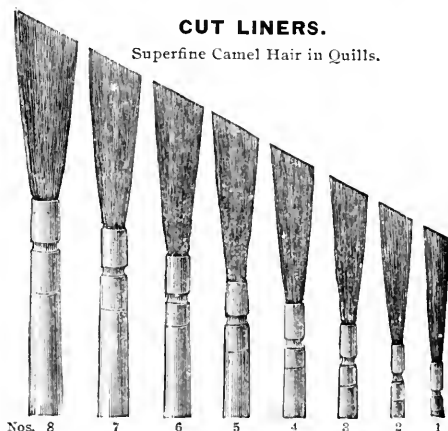
For Shading, Lining, Painting and Banding.

	Each.	Per doz.		Each.	Per doz.
1428 No. 1	\$0 05	\$0 45	No. 5	\$0 08	\$0 80
No. 2	05	50	No. 6	09	90
No. 3	06	60	No. 7	09	95
No. 4	07	70	No. 8	10	1 00
Assorted sizes					75

CHINA PAINTING—Continued.

CUT LINERS.

Superfine Camel Hair in Quills.



Nos. 8

7

6

5

4

3

2

1

For Banding.

	Each.	Per doz.		Each.	Per doz.
1429 No. 1	\$0 06	\$0 60	No. 5	\$0 09	\$0 90
No. 2	06	60	No. 6	10	1 00
No. 3	07	70	No. 7	12	1 10
No. 4	08	80	No. 8	15	1 20
Assorted sizes					90

GROUNDING BRUSHES.



No. 10.



No. 11.

		Each.	Per doz.
1430 No. 10. Superfine Camel Hair in Quills, pointed.....		\$0 15	\$1 80
No. 11. Superfine " " " square.....		15	1 80

ALOE'S SUPERIOR RUSSIA SABLE TINTING BRUSHES.



Polished Handles.

	Each.	Per doz.		Each.	Per doz.
1431 $\frac{3}{8}$ -inch	\$0 20	\$2 40	$\frac{3}{4}$ -inch	\$0 35	\$4 20
* $\frac{1}{2}$ "	25	3 00	$\frac{7}{8}$ "	40	4 80
$\frac{5}{8}$ "	30	3 50	*1 "	50	6 00

This brush is one of our great specialties; it is the finest brush money can make, and is almost indispensable for tinting, laying grounds, applying broad washes, etc.

* The most salable sizes.

CHINA PAINTING—Continued.

ALOE'S SUPERIOR RED SABLE LINERS.

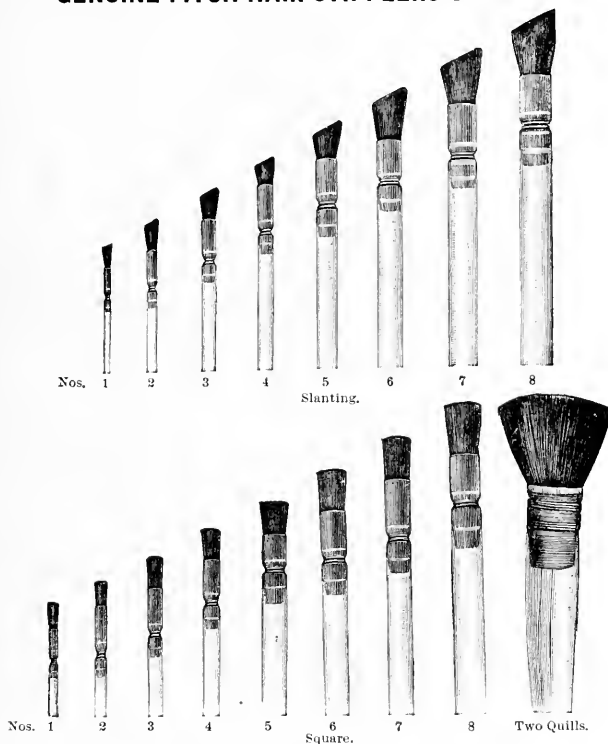
Polished Handles.



	Each.	Per doz.
1432 *No. 1.....	\$0 10	\$1 00
No. 2.....	12	1 25
No. 3.....	15	\$1 50

It would be difficult to get along without this brush; it is used for applying Raised Paste, lining in Gold and color, scrolling and delicate tracery, painting stems of flowers and fine lines of all description.

GENUINE FITCH HAIR STIPLERS OR DABBERS.



Wire-bound. For Blending. Square or Slanting.

	Each.	Per doz.		Each.	Per doz.
1433 No. 1.....	\$0 05	\$0 60	No. 5	\$0 12	\$1 00
No. 2.....	06	60	No. 6	13	1 10
No. 3.....	08	70	No. 7	15	1 20
No. 4.....	10	80	No. 8	15	1 40
Assorted sizes					1 20
Two Quills.....				30	

Fitch Hair Stiplers are used in portrait, flower and landscape painting, to blend color and soften out the strokes of the brush; also for blending background around handles, on raised or irregular parts of the China, and for applying Gold for clouded effects.

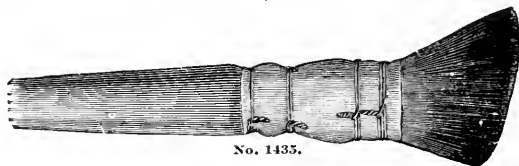
* The most serviceable size.

CHINA PAINTING—Continued.

GENUINE FITCH HAIR STIPLERS.

Wire-bound Quills. With Wood Handles. Square.

		Each.	Per doz.			Each.	Per doz.
1434	No. 2	\$0 30	\$3 60	No. 8		\$0 75	\$ 9 00
	No. 4	45	5 00	No. 10		1 10	12 50
	No. 6	65	7 50	No. 12		1 35	16 00



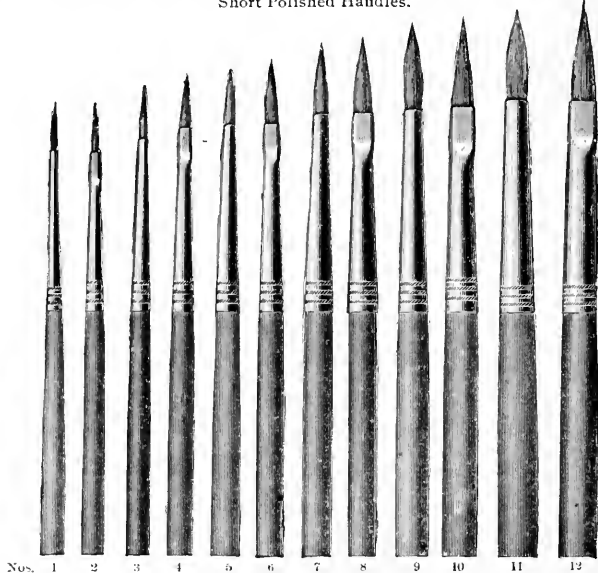
No. 1435.

Slanting Points. (Deer Foot.)

		Each.	Per doz.			Each.	Per doz.
1435	No. 2	\$0 30	\$3 60	No. 8		\$0 75	\$ 9 00
	No. 4	45	5 00	No. 10		1 10	12 50
	No. 6	65	7 50	No. 12		1 35	16 00

ALOE'S SUPERIOR REDSABLE CHINA PAINTING BRUSHES—Extra.

Short Polished Handles.



		Each.	Per doz.			Each.	Per doz.
1436	No. 1	\$0 10	\$0 90	No. 7		\$0 20	\$2 00
	No. 2	10	1 00	No. 8		20	2 20
	No. 3	10	1 20	No. 9		20	2 40
	No. 4	15	1 40	No. 10		25	2 60
	No. 5	15	1 60	No. 11		25	2 80
	No. 6	15	1 80	No. 12		25	3 00

This brush is another of our specialties. It is adapted to China painting in all its branches. and artists alike.

It is made of the finest Red Sable hair and is We cannot too strongly recommend it to amateurs

CHINA PAINTING—Continued.

INSTRUCTIONS IN CHINA PAINTING.

We assume you have carefully studied the table on page 79 and all matter following, relating to China painting, that you may apply the rules and principles as heretofore set down to the following palettes and directions for painting certain flowers, and to which we have added a number of other subjects which we believe will prove of interest. For your further assistance we have arranged them alphabetically.

The following matter has been prepared with great care, and in no instance has chance been allowed to enter into the instructions given. The subject-matter has been obtained from the highest authorities and represents the results of years of constant practice by the first ceramic artists. In this work it has been our constant aim to give you simple facts, not elaborate theories, and to present all matter without any attempt at elaboration, but in such form that you can use it.

The following directions and palettes are simple and practical; do not attempt to amplify the palettes or deviate from the directions until you are thoroughly conversant with the art.

USEFUL REFERENCES.

Sketching in Design, see pages.....	85	Enamel Work, see pages.....	89
Painting, ".....	85	High Lights, ".....	84
Backgrounds, ".....	86	Stopping Out, ".....	86
Gold Work, ".....	96	Color Lists, ".....	79 to 81 and 89 to 94
Raised Paste Work, ".....	97		

NOTE.—Leaves, in most instances, will be given under separate heading.

NOTE.—M. & H. or Dresden colors require intense firing.

Apple Blossoms.—(In Lacroix colors.) This flower requires great delicacy of coloring; it should be put in with a very thin wash of Carmine No. 2, letting this melt away into the white of the China. A little Apple Green mixed with the Carmine gives a beautiful Pale Grey for the shading. Centers of a Pale Lemon-like Yellow (Yellow for mixing), with the stamens delicately suggested with Brown No. 4 or 17, but not too much minute detail.

Apple Blossoms.—(Royal Worcester.) Foundation tint: Matt Bronze Pink shaded into Matt Bronze Yellow. Shade with Matt Bronze Pink. When dry, a thin wash of Matt Bronze Orange may be applied over the Pink to soften it. The Greens should be of Matt Yellow Green shaded with Matt Bronze Green No. 1 for deeper shades. Stems: Last two colors, with greater strength. When dry, outline with Raised Paste and Gold.

Anemone.—(In Lacroix colors.) Centers: Violet of Iron shaded with Ivory Black. High lights (Pink.) of flower: Carmine No. 1 shaded with Carmine No. 2. Shadows: Carmine No. 2 and Apple Green.

Anemone.—(Royal Worcester.) Centers: Matt Black. Local tint: Matt Bronze Pink and Matt (Pink.) Purple. Shade with strong touches of Matt Black.

Anemone.—(In Lacroix colors.) Centers same as above. High lights of flower: Clear China. (Yellow.) Middle tints: Yellow for mixing. Shadows: Carmine No. 2 and Apple Green. For stripes (should they appear): Ruby Purple and Sky Blue.

Anemone.—(Royal Worcester.) Centers same as above. High lights of flower: Ivory Vellum (Yellow.) No. 1 softened with Matt Lemon Yellow. For foundation tint: Deeper shade Matt Bronze Celadon.

Backgrounds.—See pages 86 and 93.

In Lacroix or Royal Worcester colors. Thin color with Tinting Oil or the first quality of Balsam Copaiba. For small pieces a little Rectified Turpentine or Lavender Oil added is often advantageous; but on larger articles either of these ingredients are apt to make your color dry too quickly to permit you to properly stipple and blend and ground the tint.

CHINA PAINTING—Continued.

INSTRUCTIONS IN CHINA PAINTING—Continued.

Blackberries.—(In Lacroix colors.) Local color: A wash of Ruby Purple and Victoria Blue in proportion of one to four, adding Ivory Black in shadows and edging with Ivory Black.

Butterflies.—(In Lacroix colors.)

Light Yellow. Local color: Jonquil Yellow. Shade with same. Add Brown, Green and a touch of Orange Yellow. Tip wings with Yellow Ochre shaded with Brown No. 4 or 17.

Yellow. Jonquil Yellow outlined with Yellow Ochre and Brown Green No. 6. Lower wings: Orange Yellow and Brown Green No. 6. Body: Brown No. 4 or 17. Feelers: Ivory Black. Markings: Brown No. 4 or 17 and Violet of Iron.

Brown. Brown No. 4 or 17, shaded with same and Ivory Black for deeper tones. Cut out lights and glaze with Yellow Ochre. Markings: Capucine Red shaded with Deep Red Brown.

Blue. Turquoise Blue shaded with Brown Green No. 6 worked into the Blue.

Crabs.—(In Lacroix colors.) Local tint: Brown Green No. 6 shaded with Deep Chrome Green (Soft Shell and Dark Green No. 7. Claws: Carnation No. 1 shaded with Violet of Iron. Crabs.)

Clover.—(In Lacroix colors.) Paint Clover Blossoms with Light Violet of Gold. Shade with same or with Deep Violet Gold, and touch the tips of the petals with Ruby Purple. Some of the blossoms should be quite pale, almost a Pink, and others darker and more decidedly on the Purple.

Pink Clover is not effective in Royal Worcester.

Clover.—(In Lacroix colors.) High lights: Pure China or Relief White. Local tint: Apple Green (White.) and Yellow for mixing, shaded into Yellow Ochre and Violet of Iron. Shade with Apple Green and Carmine No. 2.

White Clover is not effective in Royal Worcester.

Clematis.—(In Lacroix colors.) A clear tone of Celestial Blue mixed with Light Violet Gold and shaded with the same; put on with more body a little Ruby Purple and Dark Blue in the deeper portions, and Neutral Grey mixed with the same Blue for the shadows. Two firings.

Clematis.—(Royal Worcester.) Centers: Matt Yellow Green and Matt Lemon Yellow streaked with Matt Purple and Matt Bronze Pink. Flowers: Matt Bronze Lavender shaded with same full strength. Deep shadows: Matt Purple.

Cactus.—(In Lacroix colors.) Carmine No. 1 shaded with Carmine No. 2 and Apple Green; (Pink.) strengthen with Carmine No. 2.

Cactus.—(Royal Worcester.) Thin wash of Matt Bronze Pink shaded with same. When dry may (Pink.) be softened with thin wash of Matt Bronze Orange.

Chickens.—(In Lacroix colors.) Foundation color: Ivory Yellow shaded into Orange Yellow. Mix (Yellow.) Yellow Brown, Brown Green No. 6 and a touch of Ruby Purple for those portions suggesting Grey tints. For eyes use Ivory Black and shade with same. Feet: Brown No. 4 or 17 touched up with Neutral Grey and Yellow Ochre. Bill: Orange Yellow.

Chickens.—(In Lacroix colors.) Foundation color: Ivory Black and Victoria Blue shaded with (Black.) Ivory Black. (For further suggestions see above.)

Cupids.—(In Lacroix colors.) Style of Boucher.

To paint (Cupids) in the style of Boucher, begin by transferring your design to the China.

Then you sketch the lines of the face and the fingers and toes with Carnation No. 1. When this sketch is dry, the reflected lights are marked with Yellow Brown mixed with Ivory Yellow.

The local tint of flesh color is laid on immediately after. It is composed of one-third Carnation No. 1 and two-thirds Ivory Yellow.

CHINA PAINTING—Continued.

INSTRUCTIONS IN CHINA PAINTING—Continued.

With a little Yellow Brown for reflected lights, stippling evens the two colors placed side by side, and blends them one into the other. Let the work dry, then heighten by half a tone the extremities of the hands, feet, knees, etc. Sketch in the hair and accessories, the clouds and background, while the local tint is drying.

RETOUCHING.—When this first painting has lost nearly all its moisture, return to it again; work the shadows by stippling some Brown No. 17 mixed with Sepia, Yellow Ochre, Light Grey and a touch of Blue Green for the transparent parts. Where the flesh is brown, the reflected lights are made with Yellow Ochre throughout, and the scale of Browns is more used. A touch of Violet of Iron warms up the shadows and approaches nearer to Vandyke Brown in oils.

Currants.—(In Lacroix colors.) Light wash of Orange Red for local tint. Shade with same for shadows, touching up with Dark Green No. 7 for deeper tones. Erase high lights and markings with erasing point and glaze the former with Grass Green, the latter with Yellow Brown.

Cherries.—(In Lacroix colors.) Foundation tint: Carnation No. 3. Shade with Capucine Red into (Yellow.) Ivory Yellow, touching the latter with Orange Yellow, and blend with stippler. Cut out high lights with erasing knife. After first fire on the Orange Yellow foundation lay in shadow tint of Yellow Brown, adding a touch of Brown Green No. 7.

Cherries.—(In Lacroix colors.) Orange Yellow shaded with Capucine Red.
(Red.)

Cherries.—(In Lacroix colors.) Deep Red Brown shaded with Ruby Purple.
(Deep.)

Drapery.—*Blue.* (In Lacroix colors.) Deep Blue Green shaded with Neutral Grey, or Victoria Blue shaded with itself.

Blue. (In Mueller & Hennig colors.) Turquoise Blue and Dark Blue touched with Carmine.

Black. (In Lacroix colors.) Raven Black shaded with Neutral Grey and a touch of Yellow Ochre.

Black. (In Mueller & Hennig colors.) Brunswick Black, shaded with Turquoise Blue for lights, and Sepia Brown for deep tones.

Red. (In Lacroix colors.) Ruby Purple shaded with Carnation No. 2 and Neutral Grey (probably requiring three thin washes and as many firings to get desired strength of color).

Pink. (In Lacroix colors.) Carmine No. 2 shaded with self and Apple Green.

Green. (In Lacroix colors.) All the Greens for drapery can be shaded with Browns, Red and Carmines.

Green. (In Mueller & Hennig colors.) Brunswick Black and Canary Yellow shaded into Yellow Green, adding Shading Green and Sepia Brown for deep tones.

Flesh.—(In Lacroix colors.) To paint flesh with Lacroix colors, or, in fact, with any colors, the amateur should be restricted to a simple palette, as it affords less opportunity for getting opaque or muddy flesh color which ruins nine-tenths of the figure-painting we see. Lay in the face or figure to be painted with a clear tone of Ivory Yellow mixed with Carnation No. 2. Suggest the shadows (but do so delicately) with Deep Red Brown and Neutral Grey. Then for the second fire retouch with your shadow color, adding a little Turquoise Blue in the cooler portions, and a hint of Yellow Brown where it requires a warmer shadow tone. With these few colors we have seen beginners secure excellent results on their very first figure piece, the directions being so extremely simple that they cannot go very far astray. Deep Red Brown in Lacroix colors is the nearest thing to the Dresden Pompadour, and very like it.

Flesh.—(In Mueller & Hennig colors.) For flesh tints use Albert Yellow warmed with Pompadour Red and shaded with Sepia Brown and a touch of Brunswick Black. Where it is required, Turquoise Blue or Blue Green may be added to cool the shadow tints.

CHINA PAINTING—Continued.

INSTRUCTIONS IN CHINA PAINTING—Continued.

Forget-me-nots.—(In Lacroix colors.) Use Deep Blue Green; for those in the highest light, put the color on very thin, leaving some of the petals almost white; use the same color for the medium ones, only put on with more strength; and for those behind or in shadow a little Neutral Grey should be used with the Blue. The buds are a delicate pinkish tone and should be put in with a touch of Carmine No. 2. The centers are of Mixing Yellow with a minute touch of Yellow Brown or Carnation No. 2 (according to taste) outside the Yellow.

Fish.—*Black or Green Bass.* (In Lacroix colors.) Paint the tail and the fins that appear of a Brownish color with Brown, 4 or 17, and Neutral Grey shaded and strengthened with Ivory Black; and for those fins that have a suggestion of Red, Carnation No. 1 and Yellow Ochre should be added. All parts should be outlined more or less delicately with Ivory Black; use Grey No. 1 for local color, and for the Blue of the eye, Sky Blue. A thin wash of Carnation No. 1 is required for certain parts on the head. After first firing glaze those parts suggesting Brown with a thin wash of Brown, 4 or 17; those which partake of a Green tone with Chrome Green 3 B, and when dry with great care lay a thin wash of Sky Blue over the upper part. Relief White for high lights.

Pickrel. (In Lacroix colors.) Same as above, with the exception that local tint is composed of Brown Green No. 6, shaded with Ivory Yellow for light tones and Dark Green No. 7 for deep shades, to which, of course, Ivory Black is added. Foundation for scales, etc., is laid in with Grey No. 1.

Pike. (In Lacroix colors.) Wash upper part of body with Chrome Green 3 B deepened with Dark Green No. 7, and with this exception as above.

Flies.—(In Lacroix colors.) Blue Green shaded with Purple No. 2, and for wings Deep Chrome Green edged with Yellow for Mixing.

Fruit.—(In Lacroix colors.) See Currants, Cherries, Grapes, etc.

Grapes.—(In Lacroix colors.) Local color: Deep Blue, Ruby Purple and Ivory Black; leave or erase (Purple.) the high lights and wash with Victoria Blue. Where the grapes suggest Green use Apple Green and Yellow for Mixing, shading with Brown Green No. 6.

Grapes.—(In Lacroix colors.) Local tint: Apple Green, shaded with Yellow for Mixing for high (Green.) lights, and Dark Green No. 7 for deep tones. Cut out high lights and after firing glaze deep tones with a delicate wash of Capucine Red.

Iris.—(In Lacroix colors.) Wash in a thin tint of Light Violet of Gold and Deep Blue Green shaded with Violet of Gold pure, and for the darker flowers use Ruby Purple mixed with Deep Blue. For the shadowy parts of the lower petals a little Neutral Grey. The color should be put on in a softly graduated way, merging from a Pale Lavender in the lights to a Deep Dark Purple toward the rich velvety part of the petals, and two firings are required for this, as the color cannot be put on heavy enough for the darker portions in the first painting.

Iris.—(Royal Worcester.) For lower petals: Matt Bronze Lavender strengthened with Matt Purple. Foundation tint of upper petals: Matt Bronze Celeste shaded with Matt Bronze Lavender. Distant portions: Matt Bronze Lavender and Matt Bronze Celadon.

Jewelry.—(In Lacroix colors.) A delicate wash of Jonquil or Silver Yellow shaded with Yellow Brown and Ivory Black.

Jewelry.—(In Mueller & Hennig colors.) Local tint: Canary Yellow shaded with Sepia and Brunswick Black.

Jonquils.—(In Lacroix colors.) These should be painted with Yellow for Mixing and Silver or Jonquil Yellow. Shade with Yellow Brown here and there as required, and toward the center with Brown Green No. 6. Use a little Neutral Gray and Yellow for Mixing for the flowers in shadow, and be careful to keep the high lights pure in color so as to contrast well with the deeper and more shadowy portions.

CHINA PAINTING—Continued.

INSTRUCTIONS IN CHINA PAINTING—Continued.

Kingfisher.—(In Lacroix colors.) Local color: Carnation No. 2 toned down with Deep Red Brown and Yellow Ochre. For Blue parts: Deep Blue and Deep Blue Green, marking with Ivory Black and Brown No. 4 or 17, with a little Yellow Ochre and Violet of Iron here and there.

Leaves.—(In Lacroix colors.)

Light Green. Apple Green shaded with itself and with Carmine No. 2.

Grey. Apple Green and Carmine No. 2 mixed.

Yellow. Yellow for Mixing shaded with Brown Green No. 6 and Dark Green No. 7.

Medium Green. Yellow for Mixing and Brown Green No. 6 shaded with Dark Green No. 7.

Soft Green. Moss Green shaded with Yellow Brown.

Light Vivid Green. Moss Green shaded with Sepia.

Dark Green. Grass Green shaded with Dark Green No. 7 and Brown Green No. 6.

Blue Green. Chrome Green No. 3 B, Blue Green, Apple Green and Yellow for Mixing.

Leaves.—(Royal Worcester.)

Light Green. Matt Lemon Yellow shaded with Matt Bronze Green No. 1.

Yellow Green. Matt Yellow Green shaded with Matt Lemon Yellow.

Medium Green. Matt Blue Green shaded with Matt Dark Green and Matt Bronze Green Nos. 1 and 2.

Dark Green. Matt Dark Green shaded with Matt Bronze Green No. 2.

Lobster.—(In Lacroix colors.) Outline with Ivory Black and Brown No. 4 or 17, with here and there a touch of Violet of Iron added. The local color is Neutral Grey and Sky Blue shaded in parts with Brown No. 4 or 17. The claws are painted with Ivory Yellow and Carnation No. 1 shaded with Yellow Ochre.

Lotus Blossom.—(In Lacroix colors.) Centers: Silver Yellow and Ivory Black. Local tint: Yellow Ochre and Carmine No. 2. Markings and shadows with latter.

Lotus Blossom.—(Royal Worcester.) Local color: Matt Bronze Terra Cotta shaded with Matt Bronze Pink. Centers: Matt Bronze Yellow and Matt Black. High lights: Relief White.

Landscapes.—(In Lacroix colors.) Style of Boucher. Commence by painting the sky, using Sky Blue and excessively light Ultramarine; the lighter parts of Ivory Yellow, also very thin, and the distance Blue Green with the slightest touch of Carmine No. 1. Skies are to be painted with a large brush, and the mixing of Blue and Yellow, which would produce impossible Green clouds, is to be avoided. Skies are worked from left to right; they are washed in very rapidly, covering those places where trees will appear. A dabber or stippler may be used after.

The sky being dry, the trees are massed. Inasmuch as light tints would disappear in the firing if they were put beneath dark colors, fresh tints of Apple Green are commenced first, which are retouched or darkened at once before stippling. When these tints have been laid and are dry, the foliage is done by manipulating the brush from left to right with little strokes close together, to produce a broken effect. Autumn tints are preferable to Greens that are too bright. You obtain them with Sepia and the Ochres. Trunks of trees: Light Grey and Sepia. Branches: Violet of Iron. For strengthening touches use Violet of Iron. Houses: Ivory Yellow mixed with Grey; shadows: Violet of Iron. Ground: The lights of Ivory Yellow, and sometimes Yellow Ochre; shadows: Violet of Iron; strong tints: Brown mixed with Black. Water is painted with very light Blue Green retouched with Grey, and occasionally revived with fresher Green to reflect grass or trees.

Strengthening touches are given after the first firing, and a glaze is passed over the tints altered in the first firing.

CHINA PAINTING—Continued.

INSTRUCTIONS IN CHINA PAINTING—Continued.

- Morning Glories.**—*Red.* (In Lacroix colors.) Ruby Purple shaded with itself. Centers are all painted with Silver Yellow and Brown Green No. 6.
Red. (Royal Worcester.) Matt Flesh Red shaded with Matt Red.
Pink. (In Lacroix colors.) Carmine No. 2 shaded with self and Apple Green.
Pink. (Royal Worcester.) Matt Bronze Pink shaded with Matt Pink.
Blue. (In Lacroix colors.) Victoria Blue shaded with Ruby Purple and Brown Green No. 6.
Blue. (Royal Worcester.) Matt Turquoise Blue shaded with Matt Bronze Pink.
Lavender. (In Lacroix colors.) Victoria Blue and Ruby Purple.
Lavender. (Royal Worcester.) Matt Bronze Lavender shaded with Matt Turquoise Blue and Matt Bronze Pink.
- Oyster Shells.**—(In Lacroix colors.) Carmine No. 2 and Light Sky Blue shaded into Ivory Yellow and Yellow Ochre. Paint the eye with Purple No. 2 and Neutral Grey.
- Owls.**—(In Lacroix colors.) Local tint: Grey No. 1. Outline with Ivory Black and where Brown is suggested use Brown No. 4 or 17, adding Violet of Iron for deepest tones.
- Passion Flowers.**—(In Lacroix colors.) A clear wash of Celestial Blue mixed with Light Violet of Gold and shaded with same laid on with more force. A little Ruby Purple and Dark Blue in the darkest tones, and Neutral Grey mixed with Dark Blue for the shadows. Centers: Yellow for Mixing with shadings laid over in Yellow Brown and Ruby Purple. Markings: Dark Blue and Ruby Purple shaded with Ivory Black.
- Passion Flowers.**—(Royal Worcester.) Matt Bronze Pink washed over with Matt Bronze Celeste. Centers: Matt Bronze Yellow and Matt Bronze Orange.
- Poppies.**—(In Lacroix colors.) Paint in with Carnation No. 2, leaving the China here and there for the highest light; fire and paint again with the same (Carnation No. 2) shaded with Deep Red Brown. The centers are very effective splashed in with Deep Purple and Black, and delicately suggested Black stamens.
- Poppies.**—(Royal Worcester.) First wash: Matt Flesh Red shaded over with Matt Brick Red and Matt Red. Centers: Matt Yellow Green and Matt Black.
- Pansies.**—(In Lacroix colors.) For Purple Pansies use Light Violet Gold and Deep Blue Green (Purple.) in a pure wash for the foundation color, and shade with same put on stronger; the deep blotches in the centers should be put in with Ruby Purple and Dark Blue. A little Grey can be used, of course, in the shadows.
- Pansies.**—(Royal Worcester.) First wash: Matt Gold Yellow, shading over with Matt Purple and (Purple.) Matt Yellow mixed, and where indicated, strong touches of Matt Bronze Pink.
- Pansies.**—(In Lacroix colors.) For Yellow Pansies use a wash of Mixing Yellow and shade with (Yellow.) Jonquil or Silver Yellow. (Orange Yellow is a beautiful color to use for yellow flowers, but is very variable in firing.) Put a little Brown Green No. 6 where the petals are in shades; also a touch of delicate Grey in certain places. The dark centers make of Violet of Iron and Brown, 4 or 17, mixed. Pansies should always have two fires in order to obtain a rich pure color.
- Partridge.**—(In Lacroix colors.) Foundation color: Brown, 4 or 17, shaded into Carnation No. 1, using Yellow Ochre in parts and Violet of Iron for intense shades. Outline with Ivory Black. Grey tones are produced with Neutral Grey.
- Pheasant.**—(In Lacroix colors.) Local color: Brown, 4 or 17, shaded with Ivory Black and Neutral Grey; where the feathers incline to Red, use Carnation No. 2 shaded with Deep Red Pheasant.) Brown and Violet of Iron. For head: Dark Blue and Ruby Purple. Cut out high lights with great care.
- Peaches.**—(In Lacroix colors.) High lights: Ivory Yellow shaded with Brown Green No. 6. Local tint: Carnation No. 2 shaded with Sky Blue and Violet of Iron, with Yellow Ochre where suggested; intensify your lights with Orange Yellow and your shadows with Brown, 4 or 17.

CHINA PAINTING—Continued.

INSTRUCTIONS IN CHINA PAINTING—Continued.

Peacock.—(In Lacroix colors.) Head: Dark Blue, a touch of Ruby Purple and shaded down to body with Brown Green No. 6 deepened with Dark Green No. 7; where Brown is suggested use Brown, 4 or 17, and Yellow Ochre; outline with Ivory Black; certain feather marks require Grass Green, Yellow for mixing and Chrome Green 3 B; wings: Yellow Brown, Brown, 4 or 17.

Roses.—(In Lacroix colors.)

Jack Rose. This is one of the most difficult flowers to paint on China, and requires *three* fires to bring it to the desired richness of color, as the color *must* be put on in repeated thin washes to retain the purity, to say nothing of the danger of the color scaling off when put on too heavily. Ruby Purple and the Carmines are very apt to do this when put on too thick; therefore, put in a wash of pure Ruby Purple shading from light to dark, of course, according to your study, then fire and paint again with a wash of *Carnation No. 2* right over your first firing of Ruby Purple; shade this with the Ruby Purple, as before, and fire again. In the third firing put a thin wash of Mixing Yellow right over the high lights, and shade with Ruby Purple and Neutral Gray on the dark portions.

Tea Rose. A thin tone of Mixing Yellow mixed here and there on the edges of the petals with a little Carnation No. 1 is the best foundation for Tea Roses. Shade in places with a little Grey, and toward the heart lay in a touch of Brown Green No. 6, which over the Yellow gives that delicate Olive tint so frequently seen.

French Roses. Carmine No. 2 shaded with itself, Apple Green and Ruby Purple.

Wild Roses. These probably are more painted than any other flower, and as so very many amateurs seem to have great difficulty in getting their Carmines to work with the desired result, a number of people prefer to paint them with Carnation No. 1, and this certainly gives you a very pretty color, though not, of course, the real wild rose pink. If you do use Carmine, don't use No. 1 fancying this will give you a more delicate shade; it will not, but will fire the ugly Purple Pink you most wish to avoid. Use Carmine No. 2 put in with a pure wash, graduating from a delicate Pink almost to the pure White of the ware, and *if properly fired* there is no reason why Carmines should not be used just as successfully as the Carnations. A little Apple Green mixed with your Carmine No. 2 will give you your Grey for the shadows. Give a clear Yellow center.

Raspberries.—(In Lacroix colors.) Carmine No. 2 shaded with itself and Ruby Purple. (Red.)

Rabbits.—(In Lacroix colors.) Brown, 4 or 17, shaded with Neutral Grey, with touches of Brown M. or 108 and Grey No. 1. Markings with Ivory Black.

Squirrel.—(In Lacroix colors.) Outlinings: Ivory Black. Local tint: Brown, 4 or 17, shaded (Grey.) with self and Neutral Grey.

Strawberries.—(In Lacroix colors.) Local tint: Capucine Red shaded with Deep Red Brown and Violet of Iron, with here and there Carnation No. 2.

Sea Weed.—(In Lacroix colors.) Brown, 4 or 17, shaded with Violet of Iron touched with Brown Green No. 6, Neutral Grey and Yellow Ochre.

Stems.—(In Lacroix colors.) Brown, 4 or 17, shaded with Violet of Iron; or, Yellow Brown shaded with Brown, 4 or 17, and Violet of Iron; or, Brown Green No. 6 shaded with Yellow for mixing, Grass Green or Chrome Green 3 B; or, Blue Green with a little Carmine No. 2.

Violets.—(In Lacroix colors.) Paint Violets with a thin wash of Light Violet Gold and Deep Blue Green. Shade with Violet of Gold pure, and for the darker flowers use Ruby Purple (this very discreetly, as it is an intense color after firing) mixed with *Deep Blue*; put a touch of Jouquil Yellow for the centers, shaded with Carnation.

CHINA PAINTING—Continued.

LACROIX COLOR TABLE.

NOTE.—As many who assay China Painting have a prior knowledge of oil and water colors, we feel that a table comparing certain colors of the respective branches, one with the other, will prove of value in assisting them to become familiar with the colors they are about to use for the first time. In the following table we give, first, the name of the oil or water color, and then its nearest equivalent in Lacroix colors.

NOTE.—It is not claimed that the colors compared are *exactly* alike when fired.

BLACKS.

Ivory Black. Ivory Black.
Lamp Black. Raven Black.

BLUES.

Cobalt. Deep Ultramarine.
Prussian Blue. One-third Dark Blue; one-third Victoria Blue; one-third Ultramarine; a touch of Grey No. 2; with a very little Purple.
Indigo. Dark Blue; a touch of Raven Black.
Blue Verditer. Two-thirds Ultramarine Blue; one-third Deep Blue Green.
Smalt. Victoria Blue.
Permanent Blue. Deep Blue.
Indigo Blue. Old Blue.

BROWNS.

Vandyke Brown. It is impossible to obtain it exactly. The nearest approach would be by mixing Brown M. or 108 with Violet of Iron.
Raw Sienna. Sepia.
Prussian Brown. Brown M. or 108.
Terra Rossa. Capucine Red.
Mars Violet. Violet of Iron.
Mars Red. Deep Red Brown.
Caledonian Brown. Chestnut Brown.
Mars Brown. Otter Brown.
Cassel Earth. Vandyke Brown.
Burnt Roman Ochre. Reddish Brown.

GREENS.

Olive Green. Brown Green No. 6.
Zinobar Green, Light. Moss Green.
Emerald Green. Two-thirds Blue Green; one-third Emerald-stone Green.
Veronese Green. One-third Apple Green; one-third Chrome Green; one-third Emerald-stone Green.
Malachite Green. Apple Green; a touch of Emerald-stone Green.
Verdigris. Grounding Green.
Mineral Grey. Celadon.
Green Lake. Bronze Green.
Viridian. Green No. 36 T.
Zinobar Green, Deep. Duck Green.
Lap Green. Olive Green.
Prussian Green. Emerald-stone Green.
Cobalt Green. Deep Chrome Green.

GREYS.

Neutral Tint. Neutral Grey.
Mineral Grey. Celadon.

REDS.

Burnt Carmine. Ruby Purple.
Purple Lake. Deep Purple.
Crimson Lake. Crimson Purple.
Magenta. Purple No. 2 or two-thirds Carmine No. 3; one-third Deep Ultramarine; a touch of Ruby Purple.
Venetian Red. Capucine Red.
Mars Red. Carnation Deep.
Rose Madder with White. The Carmines.

CHINA PAINTING—Continued.

LACROIX COLOR TABLE—Continued.

YELLOWS.

Lemon Yellow. Yellow 47 of Sèvres with a touch of Silver Yellow.

Yellow Lake. Yellow for mixing.

Dark Chrome Yellow. Silver Yellow; a touch of Jonquil Yellow.

Light Chrome Yellow. Jonquil Yellow.

Indian Yellow. Half Jonquil Yellow; half Ochre.

Naples Yellow. Ivory Yellow.

Orange Yellow. Orange Yellow.

Yellow Ochre. Yellow Ochre.

French Naples Yellow. Maise.

Aurora Yellow. Gold Bud.

WHITES.

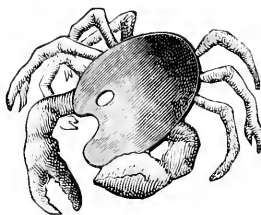
Cremnitz White. Relief White (Anfsetzweiss).

Permanent White. Permanent White.

Chinese White. Chinese White.

PURPLE.

Mauve. Mauve.



WATER COLOR PAINTING.

WINSOR & NEWTON'S WATER COLORS.



Half Pan.



Whole Pan.



Whole Cake.

1438	Whole Cakes and Pans	.....	Each, \$0	24
1439	Half " " "	.....	"	12

*Antwerp Blue	†Dragon's Blood	*New Blue
Bistre	*Emerald Green	*Olive Green
Blue Black	†Flake White	*Payne's Grey
†British Ink	*Gamboge	*Prussian Blue
†Bronze	*Hooker's Green 1	Prussian Green
Brown Ochre	*Hooker's Green 2	*Raw Sienna
Brown Pink	*Indian Red	*Raw Umber
*Burnt Sienna	*Indigo	Roman Ochre
*Burnt Umber	*Italian Pink	*Sap Green
Charcoal Grey	*Ivory Black	*Terre Verte
*Chinese White	†King's Yellow	*Vandyke Brown
*Chrome Yellow	Lamp Black	*Venetian Red
Chrome Deep	Light Red	*Vermilion
*Chrome Orange	*Mauve	Yellow Lake
Cologne Earth	Naples Yellow	*Yellow Ochre
†Constant White	*Neutral Tint	

1440	Whole Cakes and Pans	.....	Each, \$0	40
1441	Half " " "	.....	"	20

Black Lead	Mars Yellow	*Scarlet Lake
*Brown Madder	Nentral Orange	Scarlet Madder
Carmine Lake	Orange Vermilion	Scarlet Vermilion
Cerulean Blue	Purple Lake	*Sepia
*Crimson Lake	Roman Sepia	Warm Sepia
Leitch's Blue (Cyanine Blue)	Rubens' Madder	

1442	Whole Cakes and Pans	.....	Each, \$0	54
1443	Half " " "	.....	"	27

Cadmium Yellow Pale	Indian Purple	Oxide of Chromium
*Cadmium Yellow	*Indian Yellow	Pure Scarlet
Cadmium Orange	Intense Blue	Violet Carmine
*Cobalt Blue	*Lemon Yellow	Viridian (Veronese Green)
French Blue	Mars Orange	

1444	Whole Cakes and Pans	.....	Each, \$0	80
1445	Half " " "	.....	"	40

Aureolin	Field's Orange Vermilion	Purple Madder
Aurora Yellow	Madder Carmine	*Rose Madder
Burnt Carmine	Pink Madder	Yellow Carmine
*Carmine	Primrose Aureolin	

* The most salable colors in the line.

† Colors made in Cakes and Half Cakes only.

WATER COLOR PAINTING—Continued.

WINSOR & NEWTON'S WATER COLORS—Continued.

1446	Whole Cakes and Pans	Each, \$1 30
1447	Half " " "	65
	Smalt	Ultramarine Ash

NOTE.—We consider Water Colors in *half pans* the most convenient and advantageous form in which they are put up, both for the amateur and advanced artist.

NOTE.—A full description of the colors in this line will be found on pages 9 to 16, and to which we direct your careful attention.

DR. FR. SCHOENFELD & CO.'S MOIST WATER COLORS.

Moist Colors in Tubes.

**1448**

Tubes, each, 20c.

Antwerp Blue
Bone Brown
Brown Ochre
Brown Pink
Brilliant Yellow, Light
Burnt Umber
Burnt Sienna
Carmine Lake, No. 2
Charcoal Grey
Chinese White
Chrome Green
Chrome Yellow, Light
Chrome Yellow, Deep
Chrome Yellow, Orange
Dragon's Blood
Emerald Green
Gamboge
Gold Ochre
Green Lake, Dark

Hooker's Green, No. 1
Hooker's Green, No. 2
Indian Red
Indigo
Ivory Black
Lamp Black
Light Red
Naples Yellow
Naples Yellow, Reddish
Neutral Tint
Olive Green
Payne's Grey
Permanent Green, Light
Permanent Green, Medium
Permanent Green, Deep
Prussian Blue
Purple Lake
Raw Sienna

Raw Umber
Roman Ochre
Sap Green
Sepia
Terre Verte
Vandyke Brown
Venetian Red
Vermilion Light
Vermilion Deep
Vermilion Green, Light
Vermilion Green Yellow,
Vermilion Green, Deep
Warm Sepia
Yellow Ochre, No. 1
Yellow Ochre, No. 2
Yellow Ultramarine
Yellow (Lemon)
Zinc Yellow

1449

Tubes, each, 25c.

Asphaltum
Carmine Lake, No. 1
Crimson Lake
Magenta

Mars Yellow
Mars Orange
Mauve
Rose Carthame

Solferino
Scarlet Lake
Scarlet Vermilion

1450

Tubes, each, 40c.

Brown Madder
Cadmium Yellow, Light
Cadmium Yellow, Deep
Cadmium Yellow, Orange

Cobalt Blue
Indian Yellow
Malachite Green
New Blue

Pink Madder
Rose Madder
Ultramarine Blue

1451

Tubes, each, 60c.

Aureolin

Carmine

Purple Madder

Violet Carmine

IMPORTANT NOTE.—We carry this line to meet a limited demand in our retail department, but do *not* recommend it, as, aside from the quality of the colors, our climate has a tendency to dry the paint in the tube. We discourage small dealers from attempting to handle the line.

WATER COLOR PAINTING—Continued.

BOURCEOIS' CELEBRATED FRENCH WATER COLORS.

In Glass Pots.



These colors were introduced by us a few years ago, and have met with such ready sale that we have no hesitation in recommending them to the artist, architect and engineer as being equal, if not superior, to any color made.

The illustrations given show the full size and shape of the glass pots in which they are offered for sale. The variety of these beautiful tints is so much greater than any other colormau can offer that they are indispensable to decorative artists on silk, satin or plush, also to designers for wall paper and lithography, architects and civil engineers. They contain more than double the quantity sold in Winsor & Newton's Whole Pans, at nearly the same price.

They are in a moist state. The artist has but to moisten his brush and slightly rub the color desired to find that it will readily yield the full richness of its tint.

1452

*Antwerp Blue
Brown Ochre
*Burnt Sienna
*Burnt Umber
Chinese White
Chrome Yellow, Light
*Chrome Yellow, Middle
Chrome Yellow, Deep
Dragon's Blood
*Emerald Green
*Gamboge

1453

Brilliant Yellow
Dark Purple
Celestial Blue
*Crimson Lake

1454

*Brown Madder
Carthamus Rose
Carmine, 2d quality
Ceruleum
Lacque Ponceau

1455

*Cobalt Blue
*Cadmium Yellow

1456

*Carmine, 1st quality

SERIES I—Each, 30c.

*Hooker's Green
Indian Red
Indigo
Italian Pink
*Ivory Black
Lamp Black
Light Red
Lake
Magenta
*Neutral Tint
*Olive Green

SERIES II—Each, 50c.

Light Purple
Dark Purple
Luminous Green
*Sepia

SERIES III—Each, 75c.

Mars Brown
Madder Lake
Mars Orange
Mars Violet
Marine Blue

SERIES IV—Each, \$1.00.

Cadmium Orange
Intense Blue

SERIES V—Each, \$1.25.

*Rose Madder

*Payne's Grey
*Prussian Blue
Prussian Green
*Raw Sienna
*Raw Umber
Roman Ochre
*Sap Green
*Vandyke Brown
Venetian Red
*Vermilion
*Yellow Ochre

Warm Sepia
Scarlet Vermilion
Light Violet
Dark Violet

Permanent Blue
Scarlet Lake
Turquoise Blue
Ultramarine Blue

Indian Yellow
Lemon Yellow

Pure Scarlet

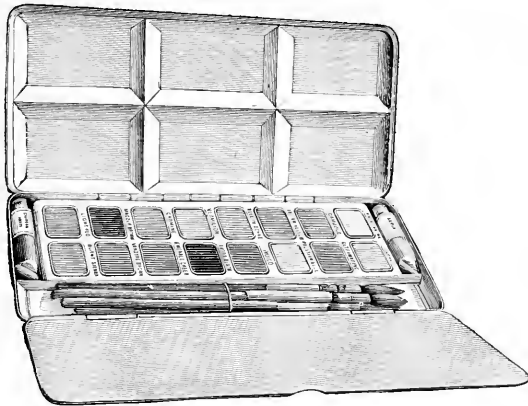
1457 Walnut Boxes for holding 6 Pots.....		Each.
1458 Walnut Boxes " 12 "		\$0 65
		75

*These are the most salable colors in the line

WATER COLOR PAINTING—Continued.**ARTISTS' AND DEALERS' HAND-BOOK.**

- 1459** A description of Modern Water Color Pigments, illustrated with washes of seventy-two colors, graduated by hand on Whatman's Drawing Paper.....Each, \$0 35

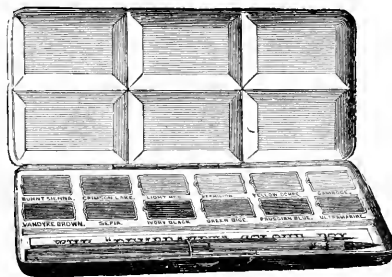
This book is of great service to the dealer, as it enables him to show his customer the exact shade of each color in the line.

LARGE "MURILLO" WATER COLOR BOX—Fitted.**No. 1460.**

- 1460** The box is made of japanned tin, white enamel lined, with 6 wells in cover for holding tints; 1 flap palette for mixing tints; 16 pans of superior moist water colors; 1 tube moist Chinese White; 1 tube moist Sepia; 4 camel hair brushes; 1 complete set of directions for using colors.....Per box, \$0 85

SMALL "MURILLO" WATER COLOR BOX—Fitted.

- 1461** Same as large, excepting there are 4 colors less.....Per box, \$0 60

LARGE "REMBRANDT" WATER COLOR BOX—Fitted.**No. 1462.**

- 1462** The box is japanned inside and out. Contains 6 wells in the cover for mixing tints; 12 metal pans of choice moist water colors, as recommended by the Department of Science and Art in Paris; 3 camel hair brushes; 1 complete set of directions for using colors.....Per box, \$0 10

WATER COLOR PAINTING—Continued.

SMALL "REMBRANDT" WATER COLOR BOX—Fitted.

1463 Same as large, excepting there are 6 colors less..... Per box, \$0 25

NOTE.—These are the *genuine* "Murillo" and "Rembrandt" boxes, manufactured by Bourgeois, of Paris. If you order elsewhere, be sure that the box is stamped "Made in France," as the *German* imitation is inferior in every respect.

BOURGOIS' CELEBRATED FRENCH WATER COLORS IN BOXES.

This is the finest line of water colors in boxes ever manufactured, and while some of the less expensive numbers are intended for children's use, the *quality* of the entire line is uniform. We sell No. 107 to many of the first Decorative houses in this country, and their artists report the colors as eminently satisfactory in every respect, beautiful in color, perfectly ground, and as responding freely to the first touch of the brush. We cannot too strongly recommend them to the dealer as desirable stock the year round, but more especially for the holiday trade.

	Each.
1464 No. 110. White wood box, slide lid, 10 half cakes, brush.....	\$0 10
1465 No. 107. White wood box, slide lid, 15 half cakes, brush.....	15
1466 No. 122. Imitation Satin wood, polished, slide lid, 12 half cakes, 2 china saucers, 4 colored crayons, brush.....	30
1467 No. 46. Imitation Mahogany, polished, hinged lid, 12 half cakes, 4 colored crayons, 2 china saucers, brush.....	35
1468 No. 48. Imitation Mahogany, polished, hinged lid, 20 half cakes, 4 china saucers, brush.....	50
1469 No. 540. Imitation Mahogany, polished, hinged lid, 18 whole cakes, 2 china saucers, 2 china slants, brush.....	1 15

NOTE.—In addition to the above, we carry Bourgeois' Water Color Boxes (fitted), ranging in price from \$1.35 up to \$20.00 each.

THE NEW ACME WATER COLORS.

For Coloring and Painting Photographs, Artotypes, Magic Lantern Slides, Engravings; for Drawing and Painting Flowers, Landscapes, etc., and for Architects' use.



No. 1470.

The Acme colors are not a liquid. They are put up in cakes in moist form, 16 colors, 14 tinting and 2 surface colors. In matters of permanency, quality, quantity and convenience, they are unequalled. No freezing, spilling or precipitating, and many times cheaper than liquid colors.

	Each.
1470 Box complete, with folding palette attachment, 16 colors.....	\$2 00
1471 Amateur Acme Box, containing the six most important colors.....	75
1472 Tinting colors, separately.....	25
1473 Surface colors, separately.....	25
1474 Acme Medium.....	30

Directions for Coloring Photographs With Acme Colors.—Acme colors readily dissolve in water, and a very small quantity added to water will produce a stronger, better and more durable coloring fluid than any of the so-called "*Liquid Photograph Colors*" that flood the market.

WATER COLOR PAINTING—Continued.

Prepare the photograph by wetting with saliva or passing a piece of sliced raw potato over it.

Great care must be exercised not to apply too much color, as it sets quickly and cannot be readily removed, while if the first application does not produce as strong an effect as desired, it can easily be strengthened by the application of a second wash.

Some photographs are so highly finished or are printed on paper of a peculiar texture, as in the case of "Aristotype" photographs, that saliva or the juice of a potato fail to give a finish upon which the colors will not crawl, while in some instances the paper will refuse to absorb the color, which will stand in little globules on the surface.

If dipping the finger in pulverized pumice stone and rubbing does not prevent the color from creeping, it will be found necessary to resort to the use of the *Acme Medium*.

Prepare your compound solution as follows: Dissolve one ounce (or less) of Gelatine (which can be obtained in any drug store) in a pint of warm water. Strain through a thin cloth. It is now ready to add the *Acme Medium*. Take up enough on a wet brush from the cake and stir into the gelatine solution to make it a *decided* orange tint. It is now ready to apply to the print, artotype or photograph you desire to color, which you do with a soft brush or bit of sponge, until the surface is completely and evenly covered. Any surplus can be drained off; then let your picture lay flat until the surface *sets*. After it has set and fully dried, let your picture be exposed to a strong light (direct sun when possible) two or three hours, or until the film becomes insoluble or tough, and will not break by action of the brush in coloring.

It is best not to add the *Acme Medium* to the entire stock of gelatine solution at once, but merely to such quantity as is necessary to cover the picture in hand. When cold, the compound will assume a jelly form. Put it into warm water, or in a warm place, when it will soon melt into a liquid, ready for use again.

Before applying the compound, as above prepared, to a photograph or burnished picture, break or soften the surface with saliva rubbed well on with a soft cloth, or your tongue, until the surface is thoroughly wetted without *crawling*.

The surface thus prepared will take all tinting colors so remarkably easy and effectively that great care must be exercised not to overcolor. A blotter to take up surplus color will be found unnecessary, and should be avoided. Full intensity of color may be made without bronzing. Before coloring on the compound, you should be able to color skillfully without it, the ordinary way. Photographs may be burnished over the compound, making a "double gloss."

To give an oil effect to your picture after coloring, rub a little Oil Megilp over it and touch up your high lights with oil tube colors, instead of the *Acme* surface colors.

The compound solution cannot be surpassed as a paste in transferring pictures to convex glass or other material.

It is advisable to wash in your background first, applying your color evenly and quickly to prevent its setting. In painting in the background, as well as the other details of the picture, do not overcolor. If by chance your brush should be too heavily charged, remove the surplus color from the paper with a blotter.

Artotypes, ordinary photographs, stereoscopic views, wood-cuts, photogravures and bromide prints do not require preparation with the medium, as they are admirably adapted for coloring and tinting in their natural state.

Platinum prints should always have a coating of the medium.

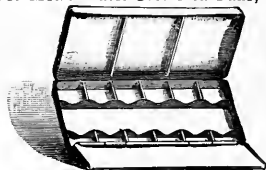
Coloring Magic Lantern Slides and Transparencies With Acme Colors.—Acme colors are transparent to the last degree and therefore very serviceable for this branch of the art. Give the slide an even coating of the medium, as already described, and in painting rest on a retouching frame or hold between yourself and the light. Use great care in applying the color, as it is almost impossible to correct an error, and surplus moisture cannot be safely removed with blotting paper, as in the case of ordinary coloring. Fasten the slides together with balsam of fir.

Painting on Linen or Other Fabrics With Acme Colors.—This work is very effective and artistic. The method is quite simple. Make your dyes by dissolving a small portion of color in water, and use care not to have your brush too full of color. If the paint spreads or runs, prepare the material by wetting with a weak solution of gelatine and water, allowing it to dry thoroughly before working in color. If you have difficulty in drawing the large designs suitable for this style of decoration, it would be well for you to use the Photo-Optican described on page 55.

WATER COLOR PAINTING—Continued.

EMPTY JAPANNED TIN BOXES.

White Enameled Lined. For Moist Water Colors in Pans, with Palette Flap Attached.



	Each.		Each.
1475 12 Half Pans.....	\$0 75	10 Whole or 20 Half Pans.....	\$1 00
18 " "	1 00	12 " 24 " "	1 10
24 " "	1 25	18 " 36 " "	1 25
6 Whole or 12 Half Pans.....	75	24 " 48 " "	1 50
8 " 16 " "	90		

JAPANNED TIN BOXES.

Fitted with Winsor & Newton's Pans and Half Pans of Moist Colors and Brushes.

- 6 Half Pan Box.** Each
- 1476** Gamboge, Yellow Ochre, Crimson Lake, Light Red, Prussian Blue, Vandyke Brown; 1 each extra super camel hair pencils Nos. 2, 4, 6 and 8, with wood handles.....\$2 00
- 12 Half Pan Box.**
- 1477** Gamboge, Raw Sienna, Yellow Ochre, Burnt Sienna, Crimson Lake, Light Red, Vermilion, Brown Madder, Cobalt, Indigo, Chinese White, Vandyke Brown; 1 each extra super camel hair pencils Nos. 2, 4, 6 and 8, with wood handles..... 3 25
- 16 Half Pan Box.**
- 1478** Gamboge, Lamp Black, Raw Sienna, Yellow Ochre, Cadmium Yellow, Burnt Sienna, Rose Madder, Light Red, Vermilion, Indian Red, Brown Madder, Cobalt, Indigo, Brown Pink, Vandyke Brown, Neutral Tint; 1 each red sable hair pencils Nos. 2, 4 and 6, and camel hair wash brush with handles..... 4 75
- 24 Half Pan Box.**
- 1479** Gamboge, Lamp Black, Raw Sienna, Yellow Ochre, Lemon Yellow, Cadmium Yellow, Burnt Sienna, Rose Madder, Crimson Lake, Light Red, Vermilion, Indian Red, Brown Madder, Cobalt, Hooker Green No. 1, Hooker Green No. 2, Prussian Blue, Indigo, Emerald Green, Chinese White, Brown Pink, Vandyke Brown, Neutral Tint, Sepia; 1 each red sable brushes in alбата Nos. 1, 2, 3, and Siberian wash brush..... 6 25

MUSIC ROLL BOX.

For Water Colors.



No. 1479a

- 1479a** Very compact and complete; size, 13 in. long by only 3 in. in diameter; japanned *white inside*; fitted with a double tray, containing spaces for 15 water color tubes, 18 whole pans, or 36 half pans, two 2-inch tinting saucers, and spring-catch lid to hold all colors in their places; also contains spaces for long handle brushes, short and quill brushes, water bottle, and ink slab. The space over the brushes, etc., is fitted with a folding tin palette, japanned black on outside and white on working side. This is the most complete and unique water color box ever invented. Each, empty.....\$2 25

(See No. 1154, page 34, for cut showing above box closed.)

WATER COLOR PAINTING—Continued.

WINSOR & NEWTON'S WATER COLOR LIQUIDS AND PREPARATIONS.



No. 1490.



No. 1486.

		—Each—	
		Small size.	Large size.
1480	Gold Ink (for illumination, etc).....	\$0 16	\$0 30
1481	Gum Water (1 oz., for glazing, etc).....	16	
1482	Gum Water (2 oz., " ").....		30
1484	Indelible Brown Ink (for monochrome work, sketching, etc).....		30
1485	Liquid Carmine (" " " " ").....	16	30
1486	Liquid Indian Ink (" " " " ").....	16	30
1487	Liquid Ox-Gall (a medium).....	16	30
1488	Liquid Sepia (for monochrome work, sketching, etc).....	16	30
1489	Ox-Gall (prepared in pots).....		20
1490	Permanent Chinese White (for gouache painting, high lights, etc).....	16	30
1491	Chinese White (in small tubes " " " " ").....		20
1492	Prout's Brown (for monochrome work, sketching, etc).....		30
1493	Water Color Megilp (for glazing, etc).....		30
1494	Water Mat Gold Size (for sizing).....		30
1495	Asphaltum (for glazing, etc).....		30
1496	Silver Ink (for illuminating, etc).....	16	30

SOEHNEE'S FRENCH WATER COLOR VARNISH.

1497	Per bottle	\$0 25
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If great power and transparency be required, the effect will be greatly heightened by passing a little Soehnee's French Water Color Varnish over the strongest parts. This will cause the colors to shine out with much force, bringing them completely in advance. Judiciously employed there is nothing that is calculated to give so much transparency and force to the work.

SCHOENFELD'S CHINESE WHITE.

1498	Per bottle.....	\$0 30	Per tube.....	\$0 20
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We consider this the best Water Color White on the market.

WATER COLOR PAINTING—Continued.

HIGGINS' AND BOURCEOIS' LIQUID DRAWING INKS.



No. 1504.



No. 1499.

		Per bottle.
1499	Higgins' "General Black" (red label).....	\$0 25
1500	Higgins' "Waterproof" Black (white label).....	25
1501	Higgins' Carmine, Scarlet, Vermilion, Brick Red, Blue, Yellow, Green, Orange, Brown, Indigo, Violet	25
1503	Higgins' Indelible Laundry Ink.....	15
1504	Bourgeois' Indelible Indian Ink, small	25
1505	Bourgeois' " " " medium	30
1506	Bourgeois' " " " large	50

BOURCEOIS AINE'S DRAWING INKS.

Manufactured in Paris.

This Ink is best for all working, architectural, map or other drawing designed to stand moisture, rough handling or washing over with colors. Lines drawn with this Ink will resist washing immediately after drying. It is not recommended for brush shading, but for lining or solid black work it is superb. It is the best Ink for Whatman's or other hard papers, on which it flows freely, giving fine, solid black lines.

WHITING'S DECORATIVE INDELIBLE INKS

Are Especially Prepared for Artistic Marking and Etching on Linen.

		Each.
1507	"Etching Ink," black, with preparation, pens and directions, in wood case.....	\$1 00
1508	Same as above, trial size.....	60
1509	Colored "Etching Ink," Crimson, Blue, Violet, Brown, Scarlet, or Green, in wood case.....	75

WHITING'S MAGIC MARKING INK.

The "Magic Marking Ink" is so called, because it is positively indelible without heat or sunshine, and never changes from the most intense and fadeless black, no matter what chemicals are used in the laundry. It is the only ink that "stays black" on silk handkerchiefs.

		Each.
1510	Hinged cases, with mordant, smoothing glass and directions.....	\$0 60
1511	Trial size.....	40

NOTE.—For Instructions on Etching on Linen, see Index.

WATER COLOR PAINTING—Continued.

CHINESE OR INDIAN INKS.

Imported by us direct from China.

We offer only fine and extra fine India Inks, we do not sell the imitation; our Inks are adapted for use of Pen or Brush.

These Inks have a reputation in China of over 400 years, and are the most carefully selected, and finest quality obtainable.



		Each.
1512	Lion Head, small, round, 64 to pound.....	\$0 15
1513	Lion Head, oval, fine quality, 40 to pound.....	20
1514	Super-Super, square black, gilt figures, 27 $\frac{1}{2}$ inches long.....	50
1515	Square Black, gilt figures, 21 $\frac{1}{2}$ inches long.....	75
1516	Super-Super, large, square black, gilt figures, 35 $\frac{1}{2}$ inches long.....	1 00
1517	Oblong Gilt, a very superior black, 3 inches long.....	1 50
1518	Extra-Extra, red, blue or yellow, 23 $\frac{1}{2}$ inches long.....	75

NOTE.—Full list of higher priced Inks will be found in our 200-page "Mathematical Catalogue," the 17th edition of which will be sent to interested parties on application.

NOTE.—Indian Inks are soluble in water and are preferred by many artists to the prepared article, but we ourselves recommend the latter, especially for amateurs

PASTES AND MUCILAGES.

	Each.
1519	Higgins' Drawing-board Paste, small bottle..... \$0 15
1520	Higgins' " " " large bottle..... 25
1521	Higgins' Photographers' " small bottle..... 15
1522	Higgins' " " " large bottle..... 25
1523	Le Page's Glue, small size bottle..... 10
1524	Le Page's Glue, large size bottle..... 20

WATER COLOR PAINTING—Continued.



No. 1525.

HICGINS' DRAWING BOARD MUCILAGE.

A novel semi-fluid adhesive of great strength and body, especially prepared for sticking paper to the Drawing Board, or any similar work requiring a quick-acting and powerful adhesive.

This is not a paste, but is truly a "Vegetable Glue," the result of a new chemical discovery. Warranted to keep perfectly good for any length of time and to contain no injurious ingredients.

1525 Price, per jar.....\$0 25

ROUND WRITING.

F. Soennecken's system of ornamental writing, so called Round Writing, has met with such flattering success that hardly any recommendation on our part is necessary.

Engineers, Architects and Draughtsmen are enabled to letter drawings, maps, etc., in Round Writing more elegantly and in considerably less time than by any other method.

NOTICE.—In order to learn Round Writing, it is indispensable to study and strictly observe the directions as they are given in the Methodical Text-Book, especially with respect to the holding of the Pen and to the exercises in writing.

The book plainly shows the scientific principle on which this writing system is based; all efforts made to master it by using Pens without the Text-Book will be without any success, vainly wasting time and labor. The correct and artistic execution of the characters does not depend, as may erroneously be supposed, on the adroitness of the hand, but merely on the thorough knowledge of the manner of holding the Pen and on the system of the characters as exhibited in the Methodical Text-Book.

	Each.	Post-paid.
1526 Methodical Text-Book to Round Writing, by F. Soennecken, including an assortment of 25 Single and Double-Pointed Pens.....	\$1 25	\$1 35
1527 Same as No. 1534, without Pens	90	1 00
1528 Copy Book without instructions (School Edition) including an assortment of 25 Pens.....	80	90
1529 Same as No. 1536, without Pens	50	55

CHINA PALETTES.

Oval or Square.

		Each.	Per doz.	
<p style="text-align: center;">Oval.</p>	1530 4 inches.....	\$0 23	\$2 75	<p style="text-align: center;">Square.</p>
	5 ".....	25	3 00	
	6 ".....	30	3 25	
	7 ".....	35	4 00	
	8 ".....	\$0 40	\$4 50	
	9 ".....	45	5 40	
	10 ".....	55	6 60	
	12 ".....	75	9 00	

For mixing Water Colors and China Colors. The square palette is preferable.



STEEL PENS.



	Each.	
1531 Gillott's Lithographic Crow Quills, 12 on a card, with holder.....	\$0 05	Per card, \$0 50
1532 Gillott's " Pens, 12 " " ".....	05	" 50
1533 Gillott's Mapping " 12 " " ".....	05	" 50
1534 Meyer & Sons' Mapping Pens, with Improved Holder, 12 on a card.....	04	" 35
1535 French Mapping Pens, each pen with holder, 12 on a card.....	05	" 40
1536 Gillott's No. 170 Pen.....	02	Per doz., 12
1537 Gillott's No. 303 Pen.....	02	" 15
1538 Gillott's No. 404 Pen.....	01	" 10

NOTE.—For Instructions in Pen and Ink Drawing and Etching on Linen, see Index.

WATER COLOR PAINTING—Continued.

AUTOMATIC SHADING PENS.

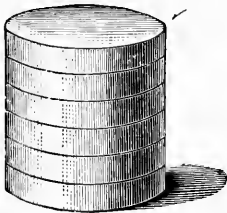


No. 1539.

A Perfect System of Self-Instruction.

- 1539** A Copy Book of 40 pages of Alphabets and Characters for practice. Every stroke on every page outlined. Any person following the directions can easily master the whole system in one week's time by giving it a reasonable amount of attention. Just the thing for teachers. The system is applicable to any pen and for all purposes from fine lettering to sign writing. Price, complete.....Each, \$2 00
- 1540** Widths of Pens, $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{7}{8}$ inch....." 25
- 1541** Set of 6 Pens, assorted sizes.....Per set, 1 25
- 1542** Automatic Shading Inks, any color, Black, Blue, Brown, Purple, Red, Green, Yellow, Orange.....Per bottle, 20
- 1543** Automatic Shading Ink.....Per dozen, assorted, 2 00

CABINET NESTS.



No. 1544. Five Cups and Cover.

WATER GLASSES.



No. 1548. Two-Lip Water Glass.

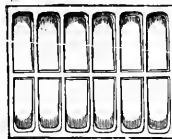
			Mat Surface Each.
1544	Nest of Cabinet Saucers, 6 in set, $2\frac{3}{8}$ -inch.....	Each, \$0 50	Set, \$0 55
1545	Nest " " " 6 " $2\frac{5}{8}$ "	" 60	" 65
1546	Nest " " " 6 " $3\frac{1}{4}$ "	" 70	" 75
1547	Nest " " " 6 " $3\frac{3}{4}$ "	" 80	" 85
1548	Artists' Water Glass, $2\frac{3}{8}$ -inch diameter.....	Each,	15
1549	Artists' " " $3\frac{1}{4}$ "	"	25
1550	Artists' " " $3\frac{3}{4}$ "	"	35
1551	Artists' " " $4\frac{1}{4}$ "	"	45

Cabinet Nests are used to hold several washes, and are so arranged that one section covers the other, thus preventing dust and dirt getting into your color when not in use.

DIVIDED SLANTS AND INK SLABS.



No. 1555.



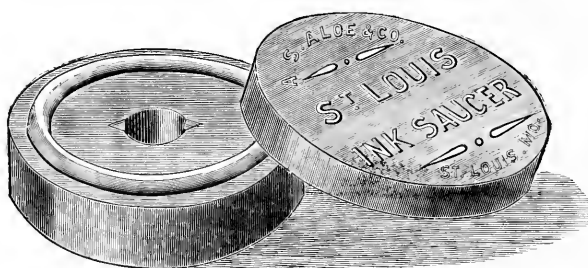
No. 1557.



No. 1553.

			Each.
1552	3 Divided Slants, $2\frac{3}{8}$ x $3\frac{3}{4}$ -inch.....		\$0 15
1553	4 Divided " 3 x $7\frac{1}{2}$ "		25
1554	5 Divided " $2\frac{3}{8}$ x $7\frac{3}{4}$ "		35
1555	6 Divided " $2\frac{3}{8}$ x $7\frac{3}{4}$ "		40
1556	8 Divided " 6 x $7\frac{3}{8}$ "		50
1557	12 Divided " 6 x $7\frac{3}{8}$ "		75

WATER COLOR PAINTING—Continued.



No. 1558.

1558	Ink Saucer of Opal Glass, with ground edges, $3\frac{1}{2}$ -inch in diameter.....	Each. \$0 40
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CHINA CUPS.

	Each.	Per doz.		Each.	Per doz.
1559 1-inch.....	\$0 02	\$0 15	$2\frac{1}{2}$ -inch.....	\$0 07	\$0 70
$1\frac{1}{2}$ ".....	03	30	3 ".....	10	1 00
$1\frac{3}{4}$ ".....	04	40	$3\frac{1}{2}$ ".....	15	1 50
2 ".....	05	50	4 ".....	20	2 00

TINTING SAUCERS.

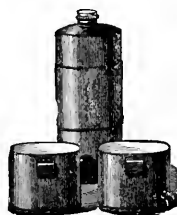
	Each.	Per doz.		Each.	Per doz.
1560 1-inch.....	\$0 03	\$0 30	$2\frac{1}{2}$ -inch.....	\$0 04	\$0 40
$1\frac{1}{4}$ ".....	03	30	3 ".....	05	45
$1\frac{1}{2}$ ".....	03	30	4 ".....	06	55
2 ".....	04	35			

China Cups and Tinting Saucers are used for mixing and holding colors, tints and washes.

JAPANNED WATER BOTTLES WITH CUPS.



No. 1561.



No. 1562.

		Each.	Per doz.
1561	No. 1. Round, $3\frac{1}{2}$ inches long, with two cups.....	\$0 60	\$ 6 00
	No. 2. Round, $4\frac{1}{2}$ " " " ".....	75	7 50
1562	No. 3. Oval, $3\frac{1}{2}$ " " " ".....	70	7 20
	No. 4. Oval, $5\frac{1}{2}$ " " " ".....	90	9 00
	No. 5. Oval, 6 " " " ".....	1 25	10 80

For carrying water into the field for sketching.

WATER COLOR PAINTING—Continued.

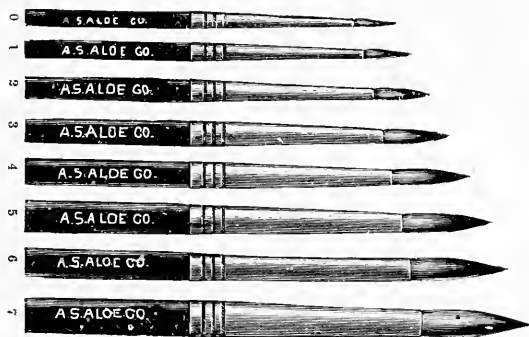
BRUSHES FOR WATER COLOR PAINTING.

If, as is granted, the quality of the brush is of the greatest importance to the artist who paints in oil colors, how much more dependent upon his tool is he who works in a medium that has little or no consistency. In the former the paint itself tends to hold unruly hair in place, thus, in a measure, at least, insuring a fair point even in an inferior brush; but in water color painting, no matter how heavily charged with color the brush may be, each and every misplaced hair will assert itself, and even in the most skillful hand good work is impossible. There is nothing in our entire line to which we devote the care and attention given to the manufacture of our justly celebrated water color brushes, and in the future, as in the past, our aim will be to offer our trade absolutely perfect goods, while our prices, as ever, will always be found lower than any of our competitors, irrespective of the acknowledged difference in quality.

ALOE'S RED SABLE BRUSHES—"Extra-Extra."

In Albata. For Miniature Painting. Polished Handles.

This brush is one of our great specialties; it is made from carefully selected stock, and is a perfect brush in every respect.



No. 1563.

	Each.	Per doz.		Each.	Per doz.
1563 No. 0	\$0 20	\$2 00	No. 5	\$0 60	\$6 00
No. 1	25	2 50	No. 6	65	6 50
No. 2	30	3 00	No. 7	75	7 50
No. 3	40	4 00	No. 8	80	8 00
No. 4	50	5 00	No. 9	90	9 00

This superior brush is the cheapest brush you can buy in the long run, as it is made of the finest quality of hair obtainable, and will outwear a number of brushes of an inferior quality. This *style* of brush (we are now speaking of its shape, weight of hair, etc.) is used for all detail work in water color painting. The only observation necessary is that the artist should always use as large a brush as the subject in hand will permit; and while this is true of every other branch of painting, there is an additional reason why especial emphasis should be given to this important rule in water work, namely, as the paper upon which you work is absorbent, if you attempted to use too small a tool, no matter how heavily loaded with color your brush might be, a few strokes would exhaust it—and effective results cannot be obtained where the work is constantly interrupted to replenish the brush with color.

WATER COLOR PAINTING—Continued.

ORDINARY RED SABLE WATER COLOR BRUSHES.

In Albata.

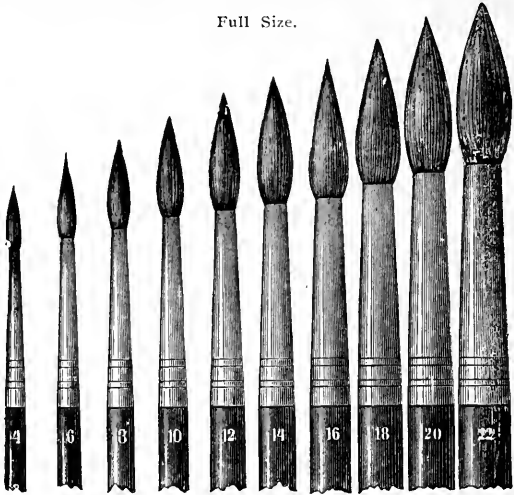
For Miniature Painting. Polished Handles. See Illustration of Brush No. 1563.

NOTE.—While this brush is superior to the majority of Red Sable Water Color Brushes on the market, it does not equal our "Extra-Extra" No. 1563.

	Each.	Per doz.		Each.	Per doz.
1564 No. 1.....	\$0 12	\$1 35	No. 7.....	\$0 55	\$ 6 30
No. 2.....	15	1 80	No. 8.....	70	8 20
No. 3.....	20	2 25	No. 9.....	85	10 20
No. 4.....	25	3 00	No. 10.....	1 10	12 75
No. 5.....	35	4 00	No. 11.....	1 35	15 75
No. 6.....	45	5 20	No. 12.....	1 70	20 25

ALOE'S BLACK SABLE WATER COLOR BRUSHES—Extra.

Full Size.



No. 1565.

Black Sable (sometimes called Brown Sable), Round, in Albata, with black handle:

	Each.		Each.
1565 No. 1.....	\$0 20	No. 12.....	\$0 55
No. 2.....	20	No. 14.....	75
No. 4.....	25	No. 16.....	1 25
No. 6.....	30	No. 18.....	1 75
No. 8.....	38	No. 20.....	2 35
No. 10.....	45	No. 22.....	3 15

WINSOR & NEWTON'S RED OR BLACK (BROWN) SABLES.

In Albata.

Black Polished Handles. Best Quality.

For Styles and sizes see No. 1570.

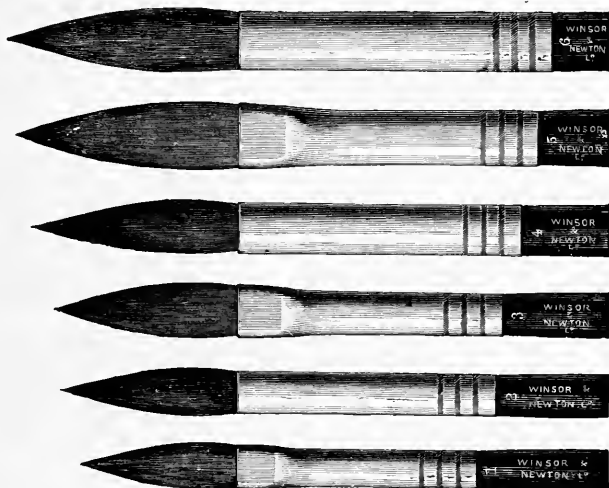
	Each.		Each.
1566 No. 1, Red or Black.....	\$0 40	No. 5, Red or Black.....	\$0 80
No. 2, " ".....	45	No. 6, " ".....	1 00
No. 3, " ".....	55	No. 7, " ".....	1 20
No. 4, " ".....	65		

WATER COLOR PAINTING—Continued.

WINSOR & NEWTON'S RED SABLE WATER COLOR BRUSHES.

"Extra Large Series."

Finest Sables in Albata Ferrules. With 9-inch Polished Ebony Handles.



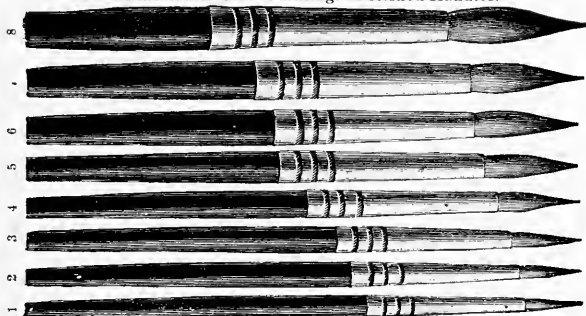
No. 1567.

	Each.		Each.
1567 No. 1. Flat or Round.....	\$2 10	No. 4. Flat or Round.....	\$4 80
No. 2. Flat " ".....	3 00	No. 5. Flat " ".....	6 00
No. 3. Flat " ".....	4 00	No. 6. Flat " ".....	7 20

ALOE'S CAMEL HAIR BRUSHES.

In Tin Ferrules.

For Fine Water Color Painting. Polished Handles.



No. 1568.

	Each.	Per doz.		Each.	Per doz.
1568 No. 1.....	\$0 06	\$0 60	No. 5.....	\$0 09	\$1 00
No. 2.....	06	65	No. 6.....	10	1 10
No. 3.....	07	75	No. 7.....	12	1 25
No. 4.....	08	85	No. 8.....	15	1 50
Assorted, 1 to 7.....					75

WATER COLOR PAINTING—Continued.

ALOE'S RUSSIA SABLE BRUSHES.

For Water Color Painting. Round Polished Handles.

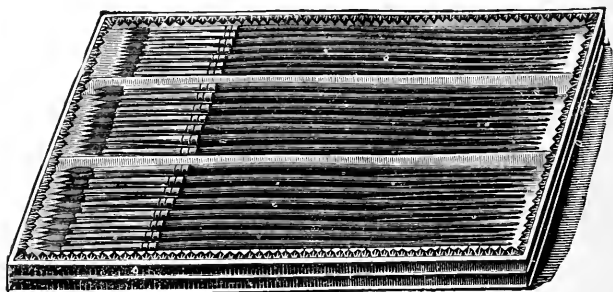


No. 1570.

	Each.	Per doz.		Each.	Per doz.
1570 No. 0.....	\$0 10	\$0 90	No. 4	\$0 20	\$1 60
No. 1	12	1 00	No. 5	22	1 75
No. 2	15	1 15	No. 6	23	2 15
No. 3	18	1 35	No. 7	25	2 40
Assorted, 1 to 6					1 50

CAMEL HAIR BRUSHES—Second Quality.

In Tin Ferrules. Brushes in Glass Top-Boxes.



No. 1571. Reduced Illustration.

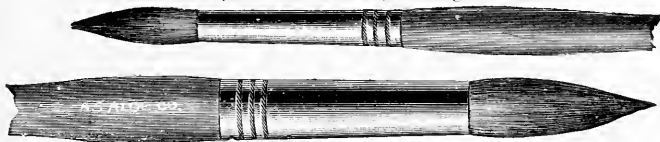
1571 Fitted with one gross Brushes, assorted; Tin Ferrules, Black Handles..... Per gross, \$5 25

	Each.	Per doz.		Each.	Per doz.
1571a Nos. 1 and 2.....	\$0 04	\$0 40	Nos. 5 and 6.....	\$0 06	\$0 60
Nos. 3 and 4	05	50			
Assorted, 1 to 6					50

WATER COLOR PAINTING—Continued.

ALOE'S SUPERIOR CAMEL HAIR SKY WASH BRUSHES.

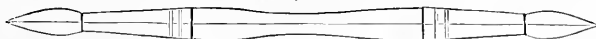
Round, in Tin. For Skies, Washing, etc.



No. 1572.

	Each.	Per doz.		Each.	Per doz.
1572 No. 00.....	\$0 15	\$1 80	No. 3.....	\$0 28	\$3 00
No. 0.....	17	2 00	No. 4.....	30	3 40
No. 1.....	20	2 20	No. 5.....	35	4 00
No. 2.....	24	2 60	No. 6.....	40	4 60

This brush is used for washing in Skies, Foregrounds, Backgrounds, etc., and being of the highest quality may be also used for detail work.

ALOE'S SUPERIOR CAMEL HAIR DOUBLE-END SKY WASH BRUSHES.

No. 1573.

Camel Hair, in Tin, with Two Points.

	Each.	Per doz.		Each.	Per doz.
1573 No. 0.....	\$0 45	\$4 80	No. 2.....	\$0 55	\$6 40
No. 1.....	50	5 60	No. 3.....	60	7 20

Siberian Hair, in Albata—Extra Quality.

	Each.	Per doz.		Each.	Per doz.
1574 No. 0.....	\$0 65	\$7 20	No. 2.....	\$0 90	\$10 00
No. 1.....	75	8 40	No. 3.....	1 00	11 00

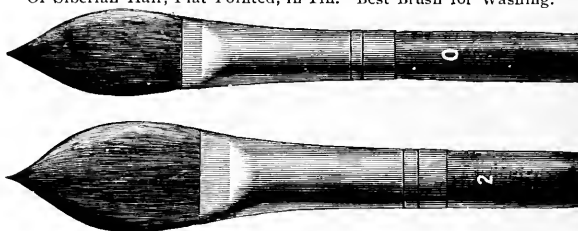
This is the best brush made.

Double-End Brushes are greatly preferred to single end, because the artist can work rapidly in two tones or can carry clear water in one end with which he can correct or modify his work as it progresses.

WATER COLOR PAINTING—Continued.

ALOE'S SUPERIOR CAMEL HAIR SKY WASH BRUSHES.

Of Siberian Hair, Flat Pointed, in Tin. Best Brush for Washing.

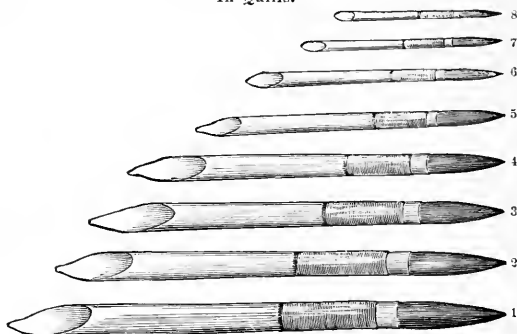


No. 1575.

	Each.	Per doz.		Each.	Per doz.
1575 No. 0	\$0 40	\$4 50	No. 2	\$0 55	\$6 30
No. 1	50	5 40	No. 3	65	7 20

ALOE'S CAMEL HAIR PENCILS.

In Quills.

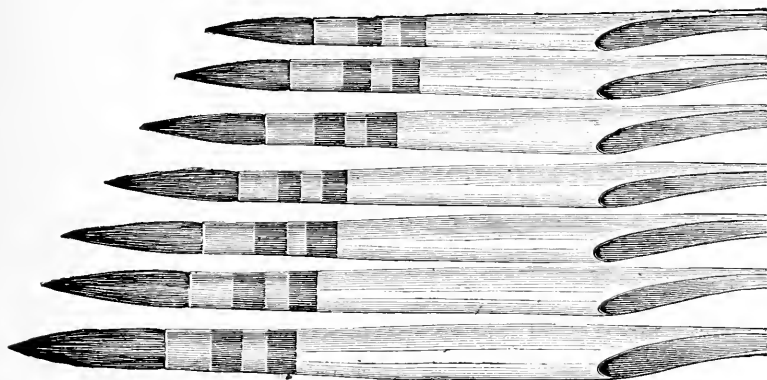


		Each.	Per doz.	Per gross.						
1576	No. 1. Ordinary, yellow bound, small sizes.....	\$0 01	\$0 10	\$1 00						
	No. 1. Ordinary " " medium and large sizes.....	02	20	1 20						
	No. 2. Medium quality, rose cross bound, small sizes.....	03	25	2 00						
	No. 2. Medium " " " " medium and large sizes.....	04	35	2 75						
	No. 3. Medium " " thread " small sizes.....	03	30	2 25						
	No. 3. Medium " " " " medium and large sizes.....	04	40	3 75						
	No. 4. Fine quality, red thread bound, small sizes.....	04	40	4 00						
	No. 4. Fine " " " " large "	05	50	5 00						
	No. 6. Fine " blue silk bound.....Each, \$0 04, \$0 05, \$0 06									
	Per dozen.....	40, 50, 60								
	No. 9. Superfine, red silk and gold thread binding, assorted, Nos. 1 to 8:									
	Sizes.....	1	2	3	4	5	6	7	8	
	Each.....	\$0 08	\$0 08	\$0 06	\$0 06	\$0 05	\$0 05	\$0 04	\$0 04	
	Per dozen..	80	80	65	65	50	50	40	40	
	No. 10. Superfine, compressed quill, Nos. 1 to 8:									
	Sizes.....	1	2	3	4	5	6	7	8	
	Each.....	\$0 05	\$0 05	\$0 06	\$0 07	\$0 08	\$0 09	\$0 09	\$0 10	
	Per dozen..	45	50	60	70	80	90	95	1 00	
	Per dozen sizes, 75c.									

WATER COLOR PAINTING—Continued.

CAMEL HAIR BRUSHES.

In Swan Quills. Best Quality.

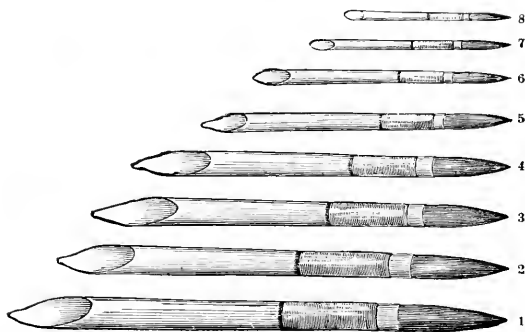


No. 1577.

		Each.	Per doz.			Each.	Per doz.
1577	No. 1.....	\$0 50	\$5 75	No. 5.....		\$0 20	\$2 00
	No. 2.....	40	4 50	No. 6.....		15	1 75
	No. 3.....	35	4 00	No. 7.....		13	1 50
	No. 4.....	30	3 00				

ALOE'S RED SABLE PENCILS.

In Quills.

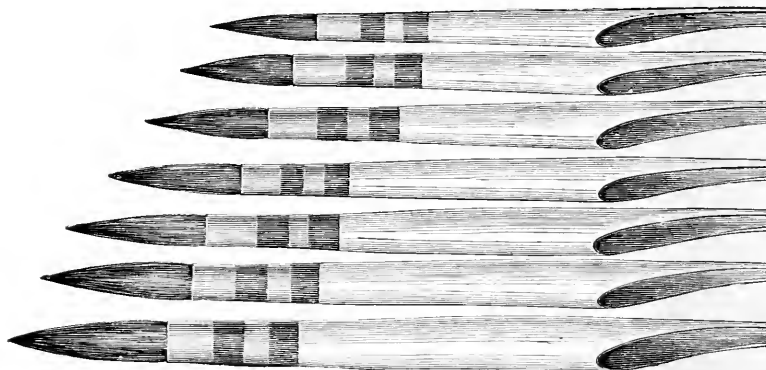


For Miniature Painting. Silk and Silver Thread.

		Each.	Per doz.			Each.	Per doz.
1578	No. 8.....	\$0 14	\$1 60	No. 4.....		\$0 44	\$5 20
	No. 7.....	18	2 20	No. 3.....		55	6 60
	No. 6.....	25	3 00	No. 2.....		70	8 20
	No. 5.....	33	4 00	No. 1.....		85	10 00

WATER COLOR PAINTING—Continued.

ALOE'S RED SABLES.



In Swan Quills. Silk and Silver Bound.

	Each.	Per doz.		Each.	Per doz.
1579 No. 6.....	\$0 75	\$ 9 00	No. 3.....	\$1 50	\$18 00
No. 5.....	90	10 25	No. 2.....	1 75	21 00
No. 4.....	1 25	14 00	No. 1.....	2 25	27 00

DRUCCISTS' CAMEL HAIR PENCILS.

	Per gross.
1580 A. Ordinary, in box, assorted, 1 to 8	\$1 50
B. Red twine bound, in <i>glass-top</i> box, assorted, 1 to 8, with handles	2 00
C. Superfine, bound in silk and gold, in <i>glass-top</i> box, assorted, 1 to 8, with handles, 5	5 50

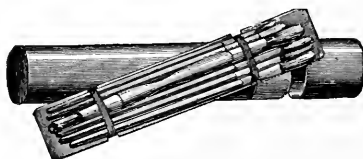
The above line sold in gross lots only.

BRUSH HANDLES.

For Quill Brushes.

	Each.	Per doz.	Per gross.
1581 Pointed ends, in different thicknesses, cedar wood, plain.....	\$0 01	\$0 10	\$1 00
Pointed ends, " " " " " polished	01½	15	1 75

ALOE'S BRUSH CASES.



No. 1582.

	Each.
1582 Water Color Brushes, 10 inches long	\$0 50

WATER COLOR PAINTING—Continued.

SUNDRY ARTICLES USED IN WATER COLOR PAINTING.

Water Color Papers and Strainers	See Index.
Water Color Blocks and Books.....	“
Water Color Boards	“
Drawing Boards	“
Drawing Tables	“
Hand-Books on Water Color Painting	“
Solar Prints.....	“
Pencils	“
Sponges	“
Blotting Paper	“
Articles for Decoration.....	“
Tracing Paper.....	“
Transfer or Impression Paper	“
Charcoal	“
Thumb Tacks.....	“
Easels.....	“
Compasses	“
T Squares.....	“
Photo-Optican.....	“
Bristle Brushes.....	“
Tinted Papers.....	“
Rubbers	“
Portfolios	“
Sketching Chairs, Umbrellas and Easels	“
Mahl-Sticks	“

INSTRUCTIONS IN THE ART OF PAINTING IN WATER COLORS.

Introductory.—During the present century water colors have risen to an importance of which previously they had not been deemed capable; the persevering exertions of colormakers to improve the colors, and of artists to develop their full capabilities, have resulted in the creation of a new art, the present style of water color painting—a style which rivals and, in some respects, excels oil painting; while the emoluments received by its successful professors are a satisfactory proof of the high estimation in which water color pictures are held by the patrons of art.

The advantages possessed by water colors are—a purity and lightness in the skies and distances unattainable by any other material, while the foregrounds can be rendered with a force and detail scarcely, if at all, inferior to oils; they are free from the glossiness so unpleasant in oil pictures; they answer for framing as well, while, by their peculiar capability of being kept in a portfolio, they can lie in a small space secure from injury, and easy of removal; besides, a drawing can be discontinued at any period of its progress without inconvenience; the process is simple, cleanly and inodorous; the work dries rapidly; the materials are very portable; they are admirably adapted for slight sketches, while they are equal to the richest effect and the most elaborate finish. Their range of usefulness is therefore very great, and hence they are employed in works of a high character, in sketching from nature, by amateurs, in teaching, and a variety of the minor branches of the fine arts.

Colors and Their Characteristics.—The matter embraced under this heading is fully covered by our article on pigments, found on pages 9 to 16, and to which we now direct the student's attention; and we feel that we cannot too forcibly impress upon him the importance of fully mastering this important branch of the subject. To the conscientious artist a thorough knowledge of the pigments he uses is of the first importance. The matter has been prepared with the greatest care, and the information gathered from sources unquestionably to be depended upon.

The Water.—That the water should be good is of importance; in some places river or spring water is impregnated with lime and other matter that render it unfit for the artist's purpose; some artists use distilled water. There should be always at least two vessels of water: one to cleanse the brushes in, the other for mixing tints. The brushes should always be washed out quite clean, and left dry in a proper shape when putting by for future use.

WATER COLOR PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PAINTING IN WATER COLORS—Continued.

The Board.—The most important feature of the board for water color work should be such a construction as will prevent it from warping or splitting from constant wetting. (See Index.)

The Table.—While any table will answer, a drawing desk with a rack at the back, by which it may be sloped more or less, as occasion may demand, will be an advantage. Tables constructed for this purpose will be found listed in the Index.

Brushes.—Red sable are the best, camel hair next; use as large a brush as your subject will permit.

T Square and Compass.—The student will find a T square useful for squaring the drawing, and a plain compass may also be occasionally necessary.

Paper.—Water color paper varies in quality very much: some makers use inferior materials, and in bleaching employ an acid which produces great whiteness, but has the dangerous property of changing vegetable Blues and Greens into Red; but such papers must, of course, be carefully avoided by the water color artist. Whatman's papers are always very good; those styled Harding's drawing papers were invented by a distinguished artist, and may be safely depended upon.

Drawing papers have three different surfaces—"rough," "not" and "hot-pressed;" the first, also called Cartridge, is preferred by some eminent artists, but the "not" (or cold-pressed) has a slightly rough surface, and is the kind most generally used; the hot-pressed is too smooth.

Whatman's paper is made in a number of sizes (see Index). "Imperial" (22x30) is most commonly used. The only objection to the papers of this maker is the fact that they are dried on a clothes-line, and many sheets show the mark across the middle. Therefore, when it is possible, select a sheet twice the desired size and cut it in two. "Imperial" paper is carried in three weights or thicknesses, respectively: 72, 90 and 140 lbs. to the ream. The first is most generally used, because it is less expensive, but the 140-lb. paper is much more desirable.

Cold-Pressed Bristol Board is the best material upon which to execute work that offers a great deal of detail, and is a very superior paper for all classes of delicate painting, figures, etc., but it is even more expensive than 140-lb. Whatman's paper. (See Index.)

French and English Crayon Papers are admirable when tinted papers are desired. They wash well and will stand considerable working. (See Index.)

Small Requisites.—The student should always be provided with soft blotting paper, or a piece of soft cloth, to wipe the brush on. The brush should not be put in the mouth, as some of the colors are very deleterious, and, besides, saliva injures the tints. A couple of white plates will generally be sufficient for mixing the tints in; if the drawing be large and a good deal of tint required, small saucers answer very well for holding the color. Various kinds of slabs, palettes, nests, etc., have been invented, and are listed in the foregoing pages; each kind has certain advantages and disadvantages.

Poisonous Colors.—The following colors are of a poisonous nature, and great care should be observed in their use; they are—Blue Verditer, Chrome, Emerald Green, Flake White, King's Yellow, Red Lead, and Verdigris.

Strainers are made of paper mounted on muslin strained over a wooden frame. They are not expensive and are delightful to work upon. By turning to the Index, you will find a price list and also full directions for making them.

To Mount Water Color Paper.—Select a sheet somewhat smaller than the board. Turn up a margin about half an inch wide all around; lay the paper face down and spread water over the back (now uppermost), using a sponge or wash brush for the purpose. Let the water soak well into the paper for a few minutes, keeping the surface equally wet all over. Lift the paper by the edges and turn it quickly over so that the wet side may come next the board. Apply strong paste to the edges. Rub these down with the handle of a penknife, using care to draw the paper outward. Stand the board in a horizontal position while the paper dries. While it is drying, notice if any portions bulge out in "blisters," and if they do not seem to disappear, a few holes may be

WATER COLOR PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PAINTING IN WATER COLORS—Continued.

pricked in them with a needle so that the air escapes; and if they still remain, a little clear water may be applied to the affected part. It is best not to attempt mounting large sheets of paper until you master the art of handling smaller ones.

Before Using Color.—Before entering into any discussion in regard to the use of color, we want to impress on the mind of the student that great care must be given to his drawing. Be sure that all your outlines are correct, as it is difficult to alter as you proceed, and coloring and shading are more apt to emphasize a defect than to eradicate it.

Transferring Color From Your Pans to the Palette.—Wet the brush in clear water and pass it over the color. When the brush is charged with color it may be unloaded on your palette or slab by one or more firm strokes, drawing the brush down or out.

If using *cake colors*, drop a little clear water on your palette and rub the end of the cake into the water. Before replacing the cake in the box stand it on end to dry.

Tints or Washes are mixed in saucers in the same manner.

Laying Washes.—To wash well, your wash *must* be thin. If not dark enough, a second and third wash can be applied over it, but it is difficult to lighten a tint that proves too dark.

When your color is once laid, allow it to dry; do not attempt to rework or correct it while wet, as you will not only fail to improve the appearance of your work, but are almost certain to ruin the surface of the paper.

Laying a Flat Wash.—Your paper should be damp, but not wet; place your board at a slight angle, with a full brush at the top left-hand corner; carry the brush along the top edge of the paper, or of that portion of it which you intend to color, and wash downwards, always from left to right, keeping the color flowing as evenly as possible. When you reach the bottom, lay the paper flat to dry.

Laying Graduated Washes.—Where one color blends into another—as, for instance, a delicate blue sky at the top into a pink glow at the horizon—commence as before with a full brush of, say, for instance, Cobalt; when you have carried this once or twice across the paper, refill the brush with a little less Cobalt and just a touch of, let us say, Pink Madder, and so on, decreasing the quantity of Cobalt and increasing that of Pink as you descend; finish by washing all the Cobalt out of the brush and using Pink Madder alone. Take care to finish before any of the color dries.

Working Detail Over Washes or on Plain Paper.—By detail, as used here, is meant trees, houses, hills, etc. The paper should be dry for this work. A full brush is used for the broad masses, but it is well to use a drier brush for defined markings, broken foliage, etc.

Undertints and Breadths of Color are washed in and allowed to dry, and shadings and markings worked over with a brush partly dry.

High Lights, when indicated by White, should be represented by the paper itself. It is a difficult thing in laying a sky wash to leave the white paper for fleecy cloud effects. These white clouds may be taken out afterwards by painting them with clean water, and while wet taking them out with blotting paper or a soft cloth; but the effect is never as brilliant or pleasing as when by a masterly hand they are left. A sharp knife is sometimes employed to remove color from the paper for high lights.

Sketching in the Design.—This is usually done with an H. B. lead-pencil by very delicate touches, indicating but a faint outline. The strength of the lines may be reduced by using a rubber, but this is apt to affect the surface of the paper.

To Correct Washes.—It is a difficult undertaking to correct an uneven wash, but the following directions are the best means that can be employed:

When the sky has been laid in unevenly, turn the drawing upside down, and with a flat camel hair or sable brush and plenty of clean water wet it all over; then with gentle rubbing, having the brush constantly full of water, level the inequalities; sometimes, especially on rough paper, the sponge may be required to remove stubborn blemishes. If there should be some parts

WATER COLOR PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PAINTING IN WATER COLORS—Continued.

too light, they can be remedied by additional washes of color. Touches with the point of a fine brush (generally termed hatching) will be required at times, in order to produce a perfectly level tint. The same means will answer for any other part of the drawing that may be uneven.

By wetting an uneven wash with a soft brush and water, and rubbing it very lightly and rapidly with a cloth, the tint may be made to look even, and, at the same time, have a granulated appearance that answers well for old walls, backgrounds, portraits and all places for which a rather rough surface is desirable.

When a tint cannot be got at once of the required depth or tone, it must be gone over with other washes of color until the object shall be attained; but in doing so, care must be taken not to disturb the undercolor.

When a wash of color is laid on the paper, leave it to dry before again working on it. Any defect observed may then be rectified more easily.

Removing Color for Reworking.—When it is wished to remove a small portion of color in order to get another tint in its place—as, for instance, to introduce a small figure or cattle into a landscape—it is usually done by wetting the part with water, and, after it has soaked a little, rubbing it with a soft cloth, by which, in general, the color will be sufficiently removed. If the wet be well soaked up by pressing it with a cloth, and the place rubbed with Indian rubber or crumb of stale bread, the color will be got out entirely.

Softening.—Softening, when only required to be done in small quantities, as in the shading of flesh, flowers, fruit, etc., is best managed by putting on the color while wet, touching the part intended to be softened with a brush containing water only. The most convenient way is to have both the brush for laying on the color and the one for softening it fixed on the same handle. In case softening is required for a large surface, the best way is to wet the part intended to be softened with the water first, and while wet run the color along the edge of the wetted part.

Handling, Style, Character and Technique.—In suggesting a careful study of high-class studies for a better understanding of these terms and all that they signify, we will ask the student to turn to page 58. What is there said applies even more forcibly in this instance. Brush work cannot be mastered by reading all the books that have ever been written on the subject. On pages 60 to 77 we give the palettes for an extensive line of subjects, but in matters of manipulation a *fac-simile* of a water color painting of some prominent artist will tell more on its face than the most lucid pen could convey in a thousand pages. Such studies as we refer to can be obtained for a nominal sum, and in the selection of subjects we suggest for landscapes reproductions from work of the following artists: Bowers, Ross Turner, J. Francis Murphy, T. J. Soper and Paul Marny. Marine studies after J. K. Harlow, Ross Turner or Martini. Flowers: E. Vouga, Longpre or Reinhart. The student will derive little benefit in working from other than *fac-similes*, as in this class of reproduction every brush-mark is indicated, plainly showing the method employed in producing the effect. The student should not first direct his attention to "making pictures;" but a careful, conscientious study of principles, methods and means is what will serve his true interests best.

Landscape and Marine Painting.—The foregoing remarks in connection with the palettes and tables found on pages 60 to 69, are offered the student under this heading.

Studying From Nature.—For studying landscape from nature the moist colors are invaluable (page 122). The box for them is of tin japanned (page 128), the lid of which is made to serve for blending the tints; and there is a ring which can be slipped over the thumb, so that the box may be held like a palette.

Moist colors are used by taking a sufficient quantity up with a penknife, which being pressed against the plate or palette will adhere, and may be readily rubbed down with the brush as it is wanted; or a touch of color can be taken with the wet brush off the mass in the box.

A water bottle (page 134) will be found useful in the field. The case consists of two tin cups, which are so contrived that they can be attached to the box; and thus the colors and the water are literally "at hand" for the student's convenience.

The brushes can be carried in the color box, in which there is space for them, or a separate brush case (page 142).

WATER COLOR PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PAINTING IN WATER COLORS—Continued.

Solid sketch books are much better adapted than the usual kind for studying landscape from nature in water colors. These books consist of a number of sheets of paper compressed so as to form a solid block, each sheet of which can be detached from the rest by passing a penknife all around under the edge. (For Palettes and Tables, see pages 60 and 77.)

Figure Painting.—In addition to the palettes and tables given on pages 69 and 73, we append the following general remarks: The flesh of figures must be worked with transparent colors in the deep shadows, and colors of some degree of body may be ventured on in the heights, but this must be done cautiously, as flesh has a natural transparency, and that quality cannot be imitated by colors having much body; not but some first-class water color artists do sometimes use White in the flesh color of their lights, and that, too, very freely; such painting may have the general effect, but it will want the semi-transparent appearance of flesh; the general effect of the picture may be sustained by the brilliancy which the body color gives, but certainly the truthfulness of the imitation suffers. Seldom, if ever, is body color used in the flesh of figures when of a large size; but in figures that are introduced as pictorial adjuncts, when of course their influence on the general effect is of far more consequence than resemblance of appearance, even dark draperies in such figures are advantageously laid in with body color in the lights. But for what may be properly styled figure drawings, where texture as well as pictorial effect has to be studied, body color must be used very sparingly.

The shadows in the flesh of figures may be done with Brown Madder and Cobalt or French Ultramarine, for a fair complexion, modifying the Grey with Roman Ochre and Rose Madder, as may be required; and for a darker complexion Brown Madder or Indian Red and Indigo, modified with the Ochre and Lake as before. Venetian or Light Red may serve very well for the flesh tint; or a mixture of Roman Ochre or Raw Sienna and Pink Madder will be still better; these colors will also answer for the lips and cheeks; Vermilion had better not be used. As for the eyes, the blues that have been named will serve for blue or grey, modified with Brown Madder; and for browns, Vandyke Brown, Burnt Sienna, Raw Sienna, etc., will be quite sufficient; the same colors, with the Sepias, will answer for the various tones of hair; the finishing shades of flesh must be made up of the most transparent tones—Brown Madder and Raw Sienna with a little Rose Madder added for the darkest touches; when the flesh is finished, a few touches of Retouching Varnish in the darkest parts will be an improvement. The brilliant lights in the eyes are best left, or if this is beyond the power of the student, expose the paper with the point of a knife, or, as a last resort, a touch of Chinese White.

Drapery.—In the draperies the same system of transparency in the shadows must be observed; while in the lights it is best to have a little body—just barely sufficient to give them a character of solidity, so that they may not look poor and washy.

Fruit and Flowers.—The principles and practice which have been explained, with the information given respecting the properties of each color (see pages 9 to 16), and the tables and palettes on pages 73 to 77, should put the student in a position, by slight modification, to portray any object desired.

Large Designs.—If the student is not able to execute life-size portraits or other difficult large drawings, the Photo-Optican can be used to advantage (see page 55).

COUACHE PAINTING.

Any water color mixed with Chinese White in sufficient quantity to render it opaque may be not improperly termed a "Gouache Color," and, although there are colors expressly prepared for this style of painting, under the name "Gouache Water Colors," we can discern no plausible reason why the artist should be required to purchase that which in reality he already has. Gouache painting is usually confined to water color painting on tinted papers; and the method of handling the colors is not dissimilar from that employed in ordinary oil painting, save that the greatest care must be exercised in "impasting" and "overworking," so as not to disturb the under painting.

PHOTO=CHROMATIC PAINTING,

Or 18=Karat Oil Painting.

Sometimes called "Cameo," "Ivory Type," "Electric," or "Florentine,"
"French Crystals," Etc.

The art known under the several names above is, no doubt, familiar to the majority of our readers. The finished picture is not unlike a porcelain or ivory painting. The only latitude the amateur has for failure to produce beautiful and artistic effects is in the matter of coloring, and even here the process is such that the violation of good taste must be a flagrant one to be more than apparent in the result obtained.

CONVEX CLASSES.

For the Cameotype Photo-Chromo Process, Etc.

Made of Best Flint Glass.

			Each.	Per doz.	Per gross.
1584	Card Size, oval.....	2 ⁵ / ₈ x 3 ⁷ / ₈ inches	\$0 03	\$0 25	\$ 2 50
1585	Card Size, square.....	2 ⁵ / ₈ x 3 ⁷ / ₈ "	03	25	2 50
1586	Cabinet ¹ / ₂ Size, oval	4 ¹ / ₈ x 5 ¹ / ₂ "	05	40	4 25
1587	Cabinet ¹ / ₂ " square.....	4 ¹ / ₈ x 5 ¹ / ₂ "	05	40	4 50
1588	Imperial " oval.....	4 ¹ / ₂ x 6 "	05	45	4 50
1589	Imperial " square.....	4 ¹ / ₂ x 6 "	05	45	4 50
1590	Imperial " " ex. thick, selected..	4 ¹ / ₂ x 6 "	07	60	6 00
1591	Promenade, square.....	4 ¹ / ₂ x 6 ¹ / ₂ "	08	65	7 00
1592	Panel Shape.....	4 x 8 "	10	85	8 00
1593	Boudoir, square.....	5 x 8 "	12	1 25	12 00
1594	Square and Oval	6 ¹ / ₂ x 8 ¹ / ₂ "	15	1 50	15 00
1595	Square " "	8 x 10 "	25	2 50	.....
1596	Square " "	10 x 12 "	60	6 50	.....
1597	Square " "	11 x 14 "	1 25	12 00	.....

OIL COLORS IN TUBES.

	Single. Each.	Double. Each.		Single. Each.	Double. Each.	
1598	White, Flake or Silver.....	\$0 05	\$0 10	Yellow Ochre	\$0 05	\$0 10
	Vandyke Brown.....	05	10	Crimson Lake.....	05	10
	Prussian Blue	05	10	Chrome Yellow	05	10
	Naples Yellow	05	10	Ivory Black	05	10
	American Vermilion	05	10			

PHOTO-CHROMATIC LIQUIDS.

		Bottle.	Per doz.
1599	Adhesive Preparation, for mounting photographs.....	\$0 25	\$2 40
	Adhesive " " " " small.....	15	1 50
1600	Diaphanous Liquid, for securing transparency.....	25	2 40
	Diaphanous " " " " small.....	15	1 50
1601	18-Karat Transparency Compound	75	8 00
1602	18-Karat Cement, for mounting	50	5 00
1603	Spirits of Turpentine, 1 oz.	06	60
1604	Spirits " " 2 "	12	1 50
1605	Higgins' Superior Paste	25	.....
1606	Jewels for 18-Karat Work	25	.....

PHOTO=CHROMATIC PAINTING—Continued.

ADHESIVE PAPER.

1607 For binding Per sheet, \$0 02 Per doz., \$0 20

COLD FOR JEWELRY.

Mix only with Water.

1608 Per pot..... \$0 10

SUNDRY MATERIALS.

	Each.	Per doz.
1609 Palette Knives, steel	\$0 25	\$2 75
1610 Palette " horn	15	1 50
1611 Palette Cup	10	1 00
1612 Palettes, mahogany	25	2 75
1613 Boxwood Tools, for mounting	08	85
1614 Rubber Rollers, for mounting	25	2 25

CAMEL HAIR BRUSHES.

Wood Handles.

	Each.	Per doz.		Each.	Per doz.
1615 No. 1	\$0 05	\$0 25	No. 4	\$0 05	\$0 30
No. 2	05	25	No. 5	05	35
No. 3	05	30	No. 6	05	35

FRAMES—CELLULOID.

1616 Each..... 25 to 50 cents.

CELLULOID FOR FRAMES.

1617 20x50 inches. White, Pink, Blue, Green, Cream Per sheet, \$1 35

CARD-BOARDS FOR BACKS OF FRAMES.

1618 22x28 inches Each, \$0 10 Per doz., \$1 00

CHROMO-PHOTOGRAPHY OUTFITS.

	Each.
1619 A. Polished Wood Box, containing 1 bottle adhesive preparation, 1 bottle diaphanous liquid, 10 tubes superior oil colors, mahogany oiled palette, boxwood tool for mounting, gummed paper, blotter, 4 brushes.....	\$1 60
1620 B. This beginner's outfit consists of 5 tubes superior oil colors, 1 bottle diaphanous liquid, 1 bottle adhesive preparation, 1 brush, 1 boxwood rubbing tool, gummed paper, blotting paper	90

18-KARAT OUTFITS.

	Each.
1621 <i>Beginner's Outfit.</i> —5 tubes superior oil colors; 1 bottle 18-karat transparent compound; 1 package 18-karat cement for mounting; 3 brushes; gum paper; 1 blotter; 1 rubbing tool.....	\$1 25
1622 <i>Teachers' Outfit.</i> —9 tubes superior oil colors; 1 bottle 18-karat transparent compound; 1 package 18-karat cement for mounting; 1 pair card convex glasses; 1 pair cabinet convex glasses; 1 rubber roller; 4 brushes; gum paper; 1 blotter; 1 bottle 18-karat jewels; 1 mahogany palette; 1 horn palette knife; 1 palette cup.....	2 50
1623 <i>Business Outfit.</i> —10 tubes superior oil colors; 3 bottles 18-karat transparent compound; 3 packages 18-karat cement for mounting; 12 convex glasses, card size; 12 convex glasses, cabinet size; 6 Russian sable artists' brushes; 1 bottle 18-karat jewels; 1 mahogany palette; 1 steel palette knife; gum paper; 1 blotter; 2 photographs selected for coloring for sample; 1 palette cup; 1 rubber roller; 1 box water colors, 15 colors; 1 bottle French drier	5 00

PHOTO-CHROMATIC PAINTING—Continued.

Instructions for Improved 18-Karat Oil Painting.—First.—The print must be removed from the card-board. (The print is a thin piece of paper pasted to the card-board.) To remove the print lay the photograph in hot water. Let it remain in the water from twenty to thirty minutes; it can then be easily removed from the card-board; if it does not separate easily, do not hurry, but again immerse it in the water until it will remove easily.

Second.—The paste must be removed from the back of the print. This is done by laying the print face downward on the palm of the hand, and washing the back thoroughly, as it is necessary to have paste entirely removed.

Third.—The surplus water must be removed. This is done by laying the print between common blotting paper.

Fourth.—The print must be mounted on glass. Lay the print face upward on a clean piece of paper and apply 18-karat cement to the face of the print, also to the concave side of the glass. Lay the glass over the print, the two prepared sides together; then work out cement with a rubber roller made to fit the glass. Wash back of print with a damp cloth; let it dry five minutes.

Fifth.—The print must be perfectly transparent. This is done by pouring on the back of the print ten or twelve drops of 18-karat transparent compound, and rubbing it over the print and letting it remain until the print becomes perfectly clear and transparent. Then wipe off transparent compound with a dry cloth.

Sixth.—The picture is now ready for painting.

Lay a second glass over the first. Secure the glasses together with strips of adhesive paper.

Use oil colors on the second glass.

The eyes, lips, jewelry, lace, and minor details, should be painted on the back of the first glass in either water or oil colors, the former preferred.

After the painting on the first glass is completed, the second is secured to the first with gum paper, care being used that they do not touch at any point except the edges. On the second glass the color for the flesh, background and drapery are laid in.

For making flesh color use Silver White; tint it with Vermilion and Naples Yellow and a little Vandyke Brown.

Brown hair: Vandyke Brown and a little of Naples Yellow.

Black hair: Vandyke Brown.

Grey hair: Silver White and a little Vandyke Brown and Blue.

For diamonds, garnets, emeralds, etc., perforate the print and insert 18-karat jewel of proper color.

When your painting is completed, back your work with card-board and seal with paste.

Eyes, lips, jewelry, laces and flowers can be colored directly on the back of the picture, using water colors.

For blue eyes use Blue, toning with Black and White.

For grey or hazel eyes use Blue, toning with Brown, White and Yellow.

For lips use Crimson Lake or Vermilion.

For jewelry use Yellow, toning with Red.

For laces and collars use White.

In landscapes, touch up flowers, trees and grass.

Buff, mix White, Yellow and Red.

Chestnut, mix Red, Black and Yellow.

Drab, mix White, Yellow, Red and Black.

Purple, mix Vermilion and Blue.

Rose, mix White and Lake.

Gold, mix Yellow and Red.

Green, mix Yellow and Blue.

Olive, mix Yellow, Blue, Black and White.

Orange, mix Yellow and Red.

Pink, mix White, Vermilion and Blue.

NOTE.—Adhesive preparation may be substituted for 18-karat cement, and diaphanous liquid for 18-karat transparent compound, but the 18-karat line is considered vastly superior to any other in the market.

CRAYON AND CHARCOAL DRAWING.

STICK AND SAUCE CRAYONS.



No. 1, Hard. No. 2, Medium. No. 3, Soft.

	Each.	Per doz.	Per gross.
1624 Conte Square Black Crayons, Nos. 1, 2 and 3	\$0 02	\$0 15	\$1 50
1625 Conte " White " Nos. 1, 2 and 3	02	15	1 50
1626 Conte Round Black " Nos. 1, 2 and 3	03	30	3 00
1627 Conte " White " Nos. 1, 2 and 3	03	30	3 00
1628 Conte " Varnished.....	04	40	4 25
1629 Conte Square Red, Nos. 1 and 2	02	15	1 50
1630 Conte " Sepia	03	25	2 25
1631 Lemoine's Square White, Nos. 1 and 2	02	15	1 50
1632 Duret's Square Grey Crayons.....	02	15	1 15
1633 German Round Crayons, 6 inches long, Nos. 1 and 2.....	05	50	6 00
1634 Girault's Crayon Sauce, in foil	04	35	3 75
1635 Conte's Crayon Sauce, in foil, very soft and black.....	06	65	7 80
1636 Aloe's "Magic Sauce Crayon," delicate Blue Black tone, very essential to flesh in crayon portraiture; recommended by all crayon artists generally; in bottles.....	15	1 00	
1637 Perfection Sauce.....	15	1 50	
1638 Imperial Crayon Sauce; is blacker than Conte; spreads and erases better than any black sauce we have seen, per bottle.....	10	1 20	

Crayon in sticks, Nos. 1624 to 1633, inclusive, are sharpened to a point and used with direct strokes in crayon drawing and pastel.

SANFORD'S SHADED CRAYON SAUCE.

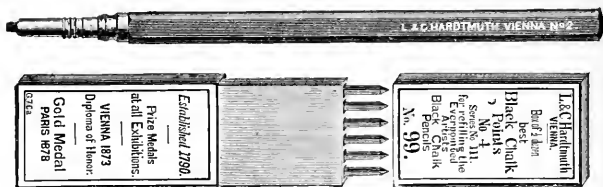
This crayon sauce produces a clean grey tone that is very desirable, and that is impossible to obtain by the use of any other crayon. It is used exclusively for light and medium tones, and with Imperial Crayon Sauce for black tones produces a picture entirely free from the brown, muddy tone produced by the use of black crayon alone.

	Per bottle.	Per doz.
1639 No. 1, light.....	\$0 10	\$1 20
1640 No. 2, medium.....	10	1 20
1641 No. 3, dark.....	10	1 20

CRAYON AND CHARCOAL DRAWING—Continued.

CRAYONS IN POLISHED WOOD.

		Each.	Per doz.
1642	Conte, in wood, black, No. 1, hard.....	0 05	\$0 50
1643	Conte, " " No. 2, medium	06	50
1644	Conte, " " No. 0, 1, 2, extra fine.....	07	75
1645	Conte, " " No. 3, extra fine, soft.....	07	75
1646	Conte, " " velvet, extra.....	10	1 00
1647	*Eugene Pearl's Crayons, in polished wood, soft.....	08	75
1648	*Eugene " " " " medium.....	08	75
1649	*Eugene " " " " hard	08	75
1650	Hardtmuth's, in wood, Nos. 1 to 5, polished cedar:		
	Nos. 1 2 3 4 5	06	60
	Very soft and very black. Soft and black. Medium. Hard. Very hard.		
1651	Conte, in wood, white, polished.....	05	50
1652	Faber's White, in plain cedar wood.....	05	50
1653	Faber's Black, " " " hard and soft.....	05	50
1654	Faber's Artists' Crayon-holder, movable, with crayon, single.....	30	
		Per box.	Per doz. boxes.
1655	Faber's Crayons for above, 6 in box	\$0 20	\$2 00



No. 1656.

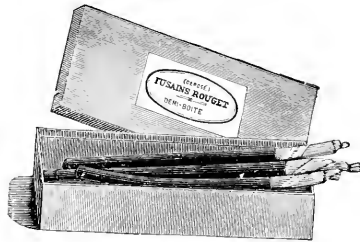
- 1656 Hardtmuth's Ever-pointed, Movable Crayons, in hexagon, black polished handles, metal cap, 6½ inches long, in 5 degrees:
- | Nos. | 1 | 2 | 3 | 4 | 5 | Each, \$0 35 |
|------|---------------------------|-----------------|---------|-------|------------|--------------|
| | Very soft and very black. | Soft and black. | Medium. | Hard. | Very hard. | |
- 1657 Hardtmuth's Crayon Leads for the above, 5 inches long, 6 in a box.....Per box, 25
- 1658 Eugene Pearl's Outfits in Crayon, comprising all the material necessary to complete a life-size portrait, giving full instructions, complete..... 2 50
- 1659 Eugene Pearl's Studies and Hints on Expression.....Per set of six, 35

*First made to order for Mr. Pearl in his specialty, fine crayon drawing. Adopted by artists and art schools generally throughout America. They are made in THREE DISTINCT GRADES—Hard, Medium and Soft—admit of fine pointing for stipple work, are entirely free from grit, intense black, cannot fade and are guaranteed superior to all others. They are finished in polished cedar, each pencil bearing Mr. Pearl's trade-mark in gold, also his name, and letter denoting degree of hardness. The exteriors being finished in different colors, the artist can distinguish at a glance the degree, without reference to the letter.

NOTE.—All the above are used for point work in crayon drawing. We consider Pearl's Crayon Pencils without equal.

CRAYON AND CHARCOAL DRAWING—Continued.

CHARCOAL.

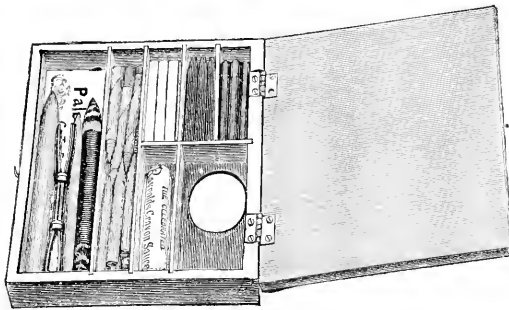


No. 1660.

	Per box.
1660 Ordinary, 50 sticks, 6 inches long, in box.....	\$0 15
1661 Conte, best, 50 sticks in box.....	25
1662 Conte, branches of willow, in box of 50 sticks.....	30
1663 Conte, Venetian, branches of willow, in box of 50 sticks, Orange band ..	50
1664 Rouget, in Nos. from 1 to 3.....	40
1665 "Julian," hard, best Charcoal made, 20 sticks, in box.....	25

Charcoal is used for charcoal drawing; also for sketching outline for oil painting, crayon drawing, etc.

ALOE'S PALETTE CRAYON OUTFIT.



No. 1666.

The lid of this box is covered inside with chamois leather for stumping, and the thumb-hole is so arranged as to allow of the box being held on the hand as comfortably as a palette.

- 1666** The box contains four each Nos. 1, 2 and 3 square black Conte crayons; two each Nos. 1 and 2 Lemoine's round white crayons; one bottle stumping chalk (sauce velours); one each Nos. 4 and 6 white paper stumps; one No. 2 white leather stump; four white tortillion stumps; four gray tortillion stumps; one brass porte crayon; fitted complete..... Each, \$1 25
Crayon Paper, see Index.

CRAYON AND CHARCOAL DRAWING—Continued.

IMPERIAL CRAYON OUTFITS.

In strong wooden boxes, with printed instructions for doing the finest crayon work by the best and most rapid methods.

1667 The outfit contains the following articles: 1 bottle Imperial Crayon Sauce; 1 bottle each of Nos. 1, 2 and 3 Sanford's Shaded Crayon Sauce; one each of Nos. 1, 2 and 3 of Imperial Hard Paper Stumps; 1 Imperial Soft Paper Stump No. 2; $\frac{1}{2}$ dozen Imperial Tortillion Stumps; 1 No. 1 Conte's Crayon Pencil; 1 No. 2 Conte's Crayon Pencil; 1 No. 3 Conte's Crayon Pencil; 1 Velvet Eraser; 1 Imperial Eraser Cleaner; 1 Imperial Chamois Palette; 1 Imperial Chamois Sauce Box.....Price, with printed instructions, \$1 75

This is not a child's outfit, but contains all the tools needed for doing the finest work.

If you want to be an artist, the best way to begin is with the study of black and white, as light and shade are more correctly learned by its use than where color is used, which often confuses and misleads the beginner.

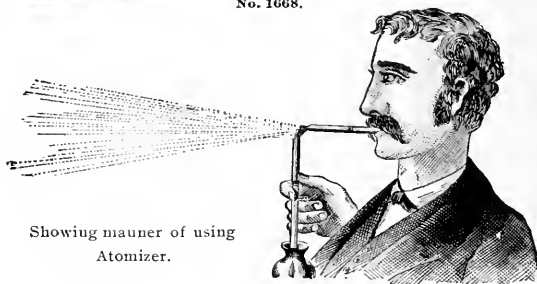
With an Imperial Crayon Outfit any person of artistic taste can teach himself the rudiments of drawing and shading at a small expense, and at the same time produce fine crayon pictures for decorating the home.

ATOMIZERS AND FIXATIFS.

For Fixing Designs in Crayon, Charcoal, etc.



No. 1668.



	Each.	Per doz.
1668 Japanned Tin Atomizer.....	\$0 15	\$1 80
1669 A. S. A. & Co., Fixatif.....	20	2 40
1670 French Fixatif (Rouget).....	50	6 00
1671 Soehnee's French, (Superfine).....	20	2 40
1672 Aloe's "Salon" Pastel Fixatif.....	25	3 00

Fixatifs are used to *fix drawings*; that is, to set the loose particles left on the surface of the paper, that they will not rub or drop off in handling. There are two methods of securing this result:

First.—To *spray* the face of the drawing with Fixatif. The Atomizer shown in the above illustration is used for this purpose. The instrument is opened until the two arms are at right angles. The shorter and smaller arm is inserted into the neck of the bottle containing the Fixatif, and the lips applied to the other end of the longer and larger arm; a long breath is taken and upon blowing through the tube the liquid will pass from the bottle up the short arm, and the current of air striking it at the top will break it into a spray or mist, which falling upon the drawing will moisten its surface without disturbing or blurring the work.

Second.—The drawing may be fastened, face down, to a board, and a camel hair brush (about one inch wide) filled with Fixatif is passed over the back. This fluid is almost colorless to the eye and absolutely so in effect. Enough of the liquid is absorbed by the paper to "fix" the drawing on the opposite side.

CRAYON AND CHARCOAL DRAWING—Continued.

CRAYON HOLDERS, OR PORTE CRAYONS.



No. 1673.



No. 1676.

		Each.	Per doz.
1673	Brass, 4 inches.....	\$0 04	\$0 45
	Brass, 5 ".....	05	50
	Brass, 6 ".....	06	55
	Brass, 8 ".....	08	65
	Brass, 10 ".....	10	75
1674	Brass, with ebony handle.....	10	90
1675	Brass, " " " double.....	15	1 50
1676	Conte, with hollow cedar center; the best Porte Crayon made.....	20	2 40

Crayon Holders, or Porte Crayons, are used to hold stick crayon, Tortillon stumps, pointed rubbers and Nigrivorie stumps, chalk, small pieces of lead-pencils, etc., etc.

NOTE.—We have discarded German Silver Crayon Holders, as the moisture of the hand blackens them at once.

BADGER HAIR BLENDERS.

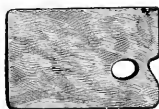
Flat, Knotted, Set in Bone.

1677	From 2 to 6 inches wide.....	Per inch, \$0 40
-------------	------------------------------	------------------

Used for blending crayon, charcoal and pastel drawings.

ALOE'S CHAMOIS PALETTES.

For Pastel and Crayon Painting.



No. 1678.

		Sizes, 6-in.	7-in.	8-in.
1678	Square or Oval.....	Each, \$0 25	\$0 30	\$0 35
	Square " ".....	Per doz., 3 00	3 50	4 00

Chamois Palettes are used for pastel and crayon in much the same manner as palettes for oil and water color painting. The dry color is held in position by the fiber or fuzz of the chamois skin.

TORTILLION STUMPS.

(Very Small Paper Stumps.)



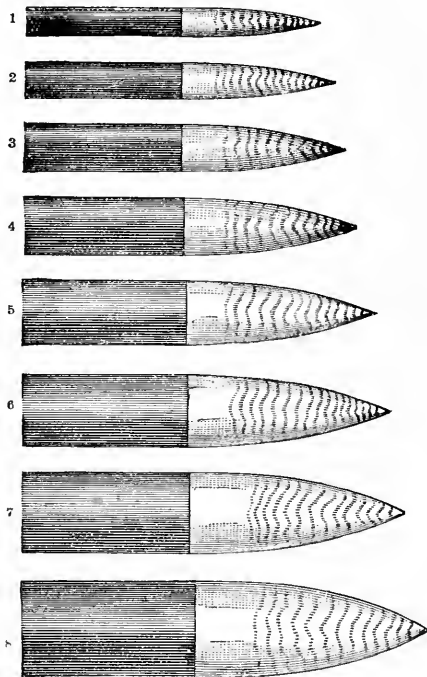
		Per bunch.	Per doz. bunches.
1679	Grey, 12 in bunch (soft).....	\$0 06	\$0 70
1680	White, 12 in bunch (hard).....	08	80

Tortillon Stumps are pointed at one end. They are used for all small work, "stippling" in portrait work and detail of any kind. The *grey* stump is preferred to the *white*, as it presents more "tooth" and takes the crayon more freely.

CRAYON AND CHARCOAL DRAWING—Continued.

STUMPS FOR CRAYON SHADING.

Pointed at Both Ends.



	Nos.	1	2	3	4	5	6	7	8
1681 Chamois	Each,	\$0 05	\$0 06	\$0 07	\$0 08	\$0 10	\$0 12	\$0 14	\$0 16
Chamois	Per doz.,	55	65	75	85	1 05	1 25	1 45	1 75
1682 Cork	Each,	05	06	07	08	10	12	14	16
Cork	Per doz.,	55	65	75	85	1 05	1 25	1 45	1 75
1683 Grey Paper	Each,	02	02	03	03	04	04	05	05
Grey Paper	Per dozen,	12	15	18	20	25	30	35	40
							Per doz.	Per gross.	
1684 Chamois, 1 to 8 assorted								\$1 00	\$11 40
1685 Grey Paper, 1 to 8 assorted								25	3 00

Stumps are used in crayon and pastel work to take the place of brushes in ordinary painting. Their surface has a "tooth," and by rubbing the end of the stump on a chamois palette that has been loaded with pastel or crayon, a certain amount of the dry powder will adhere to the stump, which may in turn be deposited on the paper. The manner of handling the stump is not unlike the use of a brush.

Grey Paper Stumps are most generally used.

Chamois Stumps are serviceable where a very soft stump is required.

Cork stumps are used for the sharp lines about the eyes, or where clear, *sharp* lines are required. They break very easily. Same price as chamois.

Pith stumps are the same price as chamois, but are of little value and very fragile.

CRAYON AND CHARCOAL DRAWING—Continued.

FELT STUMPS.

	Each.	Per doz.		Each.	Per doz.
1686 No. 2.....	\$0 15	\$1 75	No. 6.....	\$0 30	\$3 50
No. 4	20	2 25	No. 8.....	40	4 50

These stumps have been lately introduced to the trade. They give a very soft finish to the work.

IMPERIAL HARD PAPER STUMPS.

These stumps are very superior. They are carefully rolled and have a fine point, which wears well and keeps in good order when used.

	Each.	Per doz.
1687 No. 1.....	\$0 03	\$0 36
No. 2	04	48
No. 3.....	06	72

IMPERIAL SOFT PAPER STUMPS.

These stumps are something new. They will apply more crayon, making a denser shade than any other. No artist can afford to be without them.

	Each.	Per doz.
1688 No. 1	\$0 05	\$0 60
No. 2	07	84
No. 3.....	10	1 20

IMPERIAL TORTILLION STUMPS.

These stumps are well rolled, have a fine point, and are over an inch longer than the French Tortillon, making them much more convenient and avoiding the use of a porte crayon. Made in two grades—hard and soft.

	Per doz.	Per gross.
1689 Hard	\$0 10	\$1 20
1689a Soft.....	10	1 20

RUBBER STUMPS—NIGRIVORINE.

All Rubber. Both Ends Pointed.



No. 1690.

	Each.	Per doz.
1690 Nigrivorine, small.....	\$0 05	\$0 50
Nigrivorine, medium.....	07	70
Nigrivorine, large.....	10	90

CONTE'S WOOD CENTER.

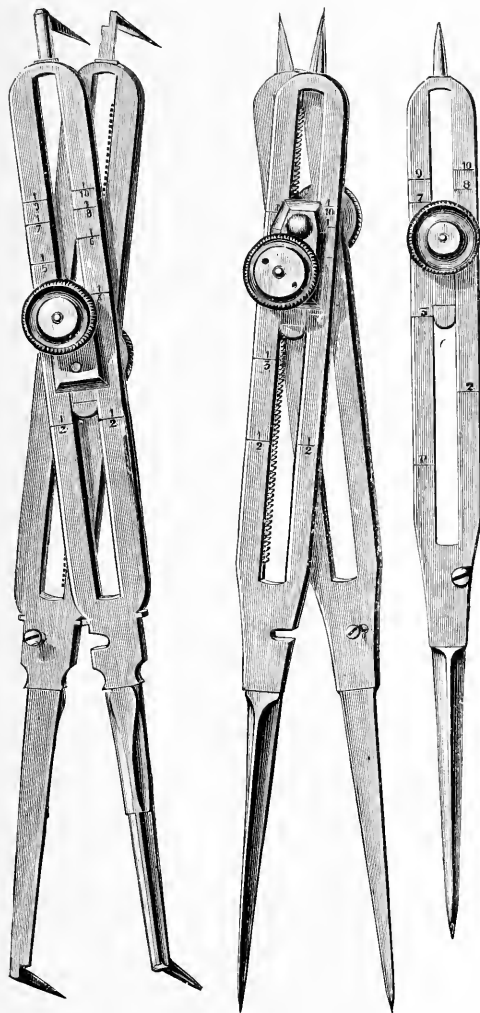
	Each.
1691 Small	\$0 10
Medium	15
Large.....	20

Rubber stumps are used in crayon, charcoal or pastel drawing to remove the material from the paper. The "Nigrivorine" No. 1690 stump is the best made.

CRAYON AND CHARCOAL DRAWING—Continued.

PROPORTIONAL DIVIDERS.

For Enlarging or Reducing Drawing and Designs.



- 1700** Proportional Dividers,
8 inches long, German
Silver, with rack ad-
justment, in case..... \$8 00
- 1701** Proportional Dividers,
7 inches long, German
Silver, in case..... 5 00
- 1702** Proportional Dividers,
6½ inches long, Ger-
man Silver, in case... 4 00
- 1703** Proportional Dividers,
6½ inches long, Ger-
man Silver, in case... 2 50
- 1704** Proportional Dividers,
Brass, in case..... 1 75

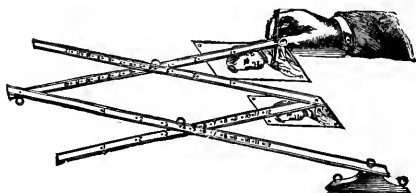
Directions for Use.

This is probably the most legitimate instrument offered the artist for enlarging and "*proving up*" his work. If the enlarged drawing is to be, say, 4, 5 or 6 times the size of the original, set the indicator at the respective figure on the scale; measure any portion of the original with the *shorter* arms of the instrument and the distance between the longer arms will be the exact size that portion should be in the enlarged drawing. It is both simple and absolutely accurate.

CRAYON AND CHARCOAL DRAWING—Continued.

ALOE'S IMPROVED PANTOCRAPHS OR DELINEATORS.

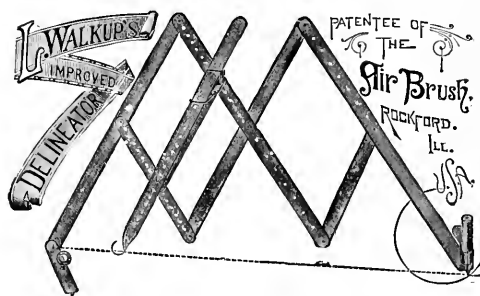
For Enlarging or Reducing Drawings of all Kinds.



		Each.
1705	No. 1. Heavily mounted with nickel-plated elbow-joint wheel, pencil-holder and exchangeable point; finely polished, black figures, in neat box.....	\$2 50
1706	No. 2. Brass-mounted, with brass elbow-joint wheel, pencil-holder and movable point; polished, black figures, in box.....	2 00
1707	No. 3. Brass-mounted, same as No. 2 in every respect, except it is not polished, in box	1 50
1708	No. 4. Brass-mounted, same as No. 3 except movable point instead of wheel, in box	1 00
1709	No. 5. The best Pantograph for the price. It has very neat and substantial trimmings, clean-cut figures, a very neat and satisfactory instrument, in box.....	50
1710	No. 6. Is a smaller instrument. It is recommended by teachers as an excellent means of familiarizing children with form and proportion, and greatly assisting them in acquiring a knowledge of the rudiments of drawing by sight from original objects	15

Directions for Use.—The foot of the instrument is fastened to the drawing board on the left. To the right is fastened the drawing paper, and at the left of this is fastened the copy to be drawn from. The point rests on the picture or other object to be copied, and by guiding the point over the lines and shadings of the picture, the pencil held in the hand, having a corresponding movement, copies as fast as the steel point traces the picture. If it is desired to make a very large drawing from a small copy, take a sketch upon a small sheet, then use the sketch to enlarge from.

WALKUP'S IMPROVED PANTOCRAPH.



(Patent applied for.)

1711	The instrument is made of the best tempered steel, nickel-plated to prevent rusting. Size, when folded up, about ten inches in length. With this perfect little instrument accurate enlarging can be done. It will enlarge from one to twenty-nine diameters. In box with directions.....	Each, \$3 00
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Directions for Use.—First secure the instrument firmly to the left side of your drawing board, with the screw and tack, through hinge of Delineator. Place your paper or parchment to the right; secure firmly. Place the movable point of Delineator on a line with hinge and pencil

CRAYON AND CHARCOAL DRAWING—Continued.

WALKUP'S IMPROVED PANTOGRAPH—Continued.

point, as shown in above cut. Place the pencil point on paper where you want the top and center of picture; now place the top and center of your small picture under the point of Delineator. You can measure from different places on picture to find the size. If the enlargement is too small, carry Delineator point to the left; if too large, carry to the right. The nearer the two points are together, the less the enlargement; the further they are apart, the greater the enlargement. With a little practice any one will soon learn about the number of holes that they will need to move the point. Never fail to move the point up or down to keep it on a line, as in cut, as you move it on the bars, for large or small work, or your enlargement will not be properly proportioned.

Be careful to place the hook on the spring in place first, then press it back gently until the pin at point will enter corresponding hole on front bar. The same method of handling is necessary in removing the point; press it back and lift the front or point end first.

You can now make as many measurements as you like by placing a dot with pencil at any point you wish to strike in your sketch. Then take your pencil and sketch in your lines from measurements made with pencil dots.

METROSCOPE.

For Portrait Work Enlarged from the Photograph; it has no Equal for Correctness and Rapidity.



1712 This cut represents the Metroscope a little over one-third its size, in length and width.

Six distinct sizes of squares, three on each side, ranging from one-sixteenth to one-half inch square, are furnished for use by this instrument.

"It trains the eye and should be used in all schools."

"It is practical alike to the skilled artist and the amateur."

The principle of the Metroscope is a new and improved form of the old square system for enlarging, which renders it thoroughly practical to portrait artists. The improvement consists mainly in the subdivision of the squares into smaller ones by fainter lines. This subdivision of the squares renders the copying of details absolutely certain, and the general accuracy of the drawing assured.

The lines forming these squares are engraved upon two fine plates of glass four inches square, which are placed with their lined sides toward each other in a pair of frames held together by adjustable thumb-screws. By this combination a picture of cabinet photograph size may be placed between them and fastened, showing the squares upon one of the glasses, clearly visible upon the face of the picture. The squares upon the two glasses differ in size for convenience in working from pictures of various sizes. The size of the squares upon the canvas for the portrait, is usually determined by dividing the length of the head, by the number of squares up and down, upon the head of the photograph, paying no attention to the small squares, which may afterwards be drawn in for the eyes and such other detail as may be deemed necessary.

As many photographs are stretched, causing faces to appear lengthened or broadened, it is desirable to correct this distortion, which may be done by ruling the squares a trifle narrower in the direction in which the stretching has taken place. The principle of the Metroscope is the only one by which this great fault can be corrected. Full directions accompany each instrument.

Complete in neat case, \$2.00

INSTRUMENTS FOR ENLARGING AND REDUCING DRAWINGS, ETC.

Aloe's wonderful Photo-Opticon—See page 55.

Polyopticons—Special Catalogue sent on application.

Aloe's Metamorphoser— " " "

Magic Lanterns of all kinds—Catalogue sent on application.

Aloe's Monarch Sciopicon— " " "

Cameras—Special Photographic " " "

Scientific Pantographs, from \$24.00 to \$200.00, contained in our Mathematical Catalogue (over 200 pages), sent on application.

CRAYON AND CHARCOAL DRAWING—Continued.

MECHANICAL DEVICES FOR CRAYON ARTISTS.

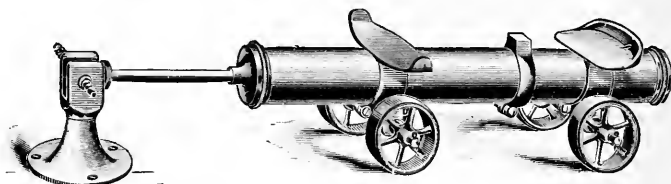
Rockford Air Brush, Easel and Supplies.

	Net.		Net.
1713 Air Brush, plain, with pump.....	\$40 00	Blast Point only.....	\$1 00
Air " jeweled, with pump.....	45 00	Blast to feed wheel.....	25
Easel.....	5 00	Walking Bar.....	35
Wheel.....	1 00	Needle Guide.....	10
Wheel balanced on shaft.....	1 25	Screwdrivers.....	25
Wheel Shaft.....	25	Tweezers.....	Each, 15
Upper Wheel Bearing, left-hand screw.....	Each, 25	Rubber Tubes, for inside of brush,.....	Per doz., 25
One at end of walking bar shaft is duplicate.		Tubing from pump to cau.....	Per ft., 08
Lower Wheel Bearing.....	10	Tubing " can to hand-piece.....	" 07
Needles.....	Per doz., 25	Main or K Valve, complete.....	2 00
Spoons.....	Each, 50	Carriage for brush, complete.....	5 00
Left-hand Spoons.....	" 1 00	Carriage " " jeweled.....	10 00
Screws for wheel bearings, ".....	10	Rubber Valves.....	05
Downward Blast Point and Tube complete.....	1 25	Round Leather Valves.....	05
		I. A. S. Rubber Erasers.....	10

FOUNTAIN AIR BRUSH.



No. 1713.



No. 1714.

ADVANTAGES OVER OLD FORM OF FOOT PUMP.

Three times the amount of air with each stroke.
Less exertion per stroke.

Does not give a jerky motion to body.
Length of Stroke, 12 inches.

1714 Fountain Roller Pump, complete, with reservoir and tubing.....	\$ 7 50
1715 Fountain Air Brush.....	25 00
Complete outfit.....	32 50

These instruments are used by crayon artists in executing portraits. The work done is permanent and the execution rapid. The process is unequalled for work over solar prints or other enlargements. While the effect does not equal the highest class free-hand drawing, the appearance is artistic and beautiful, and many artists who could never do creditable free-hand work are able, assisted by the air brush, to execute high-class portraits and with a rapidity that is almost incredible. Viewed solely as a money producer in the hands of a crayon artist, its purchase it the best possible investment the professional crayon artist can make.

1725	Size, 9x12 inches.....	Each.	\$0 50	Per doz.	\$ 6 00
1726	Size, 12x18 “.....		85		10 00
1727	Size, 9x12 “ extra fine quality Michalet paper.....		65		7 80
1728	Size, 12x18 “ “ “ “ “ “ “		1 00		12 00

CRAYON AND CHARCOAL DRAWING—Continued.

CHARCOAL PAPERS.

		Per sheet.	Per quire.
1729	Academy Royal, Size, 19x25.....	\$0 03	\$0 60
1730	Light Grey, Buff, Pinkish and Bluish Tints.....	05	60
1731	Lalanne, Size, 19x24.....	05	90
1732	Michalet, Size, 19x25.....	05	85

Suitable for certain effects in water color painting. For general line of paper adapted for crayon work, see Index.

ELECTRIC LIGHT SOLAR PRINTS.

Special Notice.—As much depends upon the good printing qualities of a Solar Negative, we prefer to make our own Solar Negatives from copies without charge, if the originals are sent to us with orders for enlargements.

Parties desiring work can mail or express the originals to us and rest assured that prompt and immediate return will be made.

1733	Size, Inches.	Usual Size of Face from Roots of Hair to Bottom of Chin in Bust Pictures.	READY FOR FINISHING IN CRAYON, PASTEL, WATER COLOR, ETC.			Made on our First Quality Prepared Linen Canvas, Mounted on Wooden Stretchers, Ready for Painting in Oil Color.
			In Sheets or Unmounted.	Mounted on Card-board.	Mounted on Muslin-Covered Wood Stretchers.	
	8x10	2-inch	\$0 50	\$0 65		\$ 2 35
	10x12	2½ "	50	65		2 50
	14x17	4½ "	50	65	\$0 70	3 25
	16x20	5 "	60	75	75	3 75
	18x22	6 "	75	90	1 00	4 00
	20x24	7 "	75	90	1 60	4 50
	22x27	7½ "	1 25	1 50	1 60	5 25
	25x30	8 "	1 40		1 75	6 25
	30x40	8 "	3 00		3 75	8 00
	40x50		5 50		7 50	10 00

Intermediate sizes charged at next larger. Larger sizes in proportion.

Solar prints on sheets can be rolled and sent to any part of the United States or Canada. Postage and roller, extra 10c.

Prints can be made from photographs, daguerreotypes, gems or tintypes, engravings or paintings, groups, heads, landscapes, etc.

Two separate originals can be combined in one print, at double the charge of a single print that size; also parts of the original can be left off if desired.

In ordering, be particular to give size desired, outside measure. Size of face from roots of hair to bottom of chin, if the print is to be made a bust picture.

State how much of the figure, etc., is wanted, whether vignette or full print, mounted on strainer, card-board, or unmounted, dark, medium or light print, and if intended for crayon, pastel, water color, oil painting, etc.

The above special price list is offered as an inducement to secure your order and show you what every one admits is the finest work in electric light prints ever made.

SUNDRY ARTICLES FOR CRAYON AND CHARCOAL DRAWING.

Easels.....	See Index.
Drawing Boards.....	"
Thumb Tacks.....	"
Rubbers.....	"
Hand-Book on Crayon Drawing.....	"
Hand-Book on Charcoal Drawing.....	"
Mahl-Sticks.....	"
Papers for Crayon Work, Whatman's, Reliable, Polygon, etc.....	"
Paste.....	"
Glue.....	"
Water Colors for Backgrounds.....	"
Brushes for Backgrounds.....	"

CRAYON AND CHARCOAL DRAWING—Continued.

INSTRUCTIONS IN THE ART OF CRAYON DRAWING PORTRAITURE.

Of materials enough has been said in the foregoing pages to render a remark here and there all that is necessary in this article. We will first treat only of such general rules as apply to the several methods employed, and then briefly mention the distinctive features of each.

The Sketch.—If a *solar or other print* is used, all the details are before the artist, and he has but to finish a sketch already, we might say, half done; and again, the following lines will not prove of interest or value to one who intends to use the "*Photo-Optican*," Pantograph or other mechanical means of securing his drawing, as they are directed solely to the student who assays to execute a crayon portrait without other assistance than he may have at hand. To begin with, if the original is of value and must be preserved, string threads across the face in either direction, dividing its surface into minute squares, exercising care that the distance between the threads is uniform. If the photograph from which you work is of little value or can readily be replaced, substitute pencil lines for the threads. When the original is properly lined, draw lines across your paper or strainer to exactly correspond with those on the original; that is to say, an equal number of lines. Of course, you will understand that if the enlarged drawing is to be ten times the size of the original, the distance between the lines on the former will be ten times greater than is the case on the latter. While threads can be used on the strainer or paper, lines are obviously to be preferred, but they must not be drawn with a lead-pencil, as pencil lines cannot be fully erased. The best method of securing your lines on the strainer is as follows: Drive a tack in the outside edge of the strainer, at the exact point where a certain line starts; tie a piece of cotton string to this tack and rub the string with the side of a stick of soft charcoal and hold the string taught at the other end of the strainer at the exact point where the line should end. With the forefinger and thumb lift the string at the middle point about one inch from the paper; when you release the string it will snap back against the paper, and the charcoal that adhered to it will leave a delicate straight line on the paper, and when the picture is finished this line may be readily removed with a rubber or even dusted off with a silk handkerchief. A line to correspond with each line in the original must be made in this manner. The beginner requires a greater number of lines than one who is more proficient in drawing.

These lines enable you to locate any desired point where lines cross; and in determining the position of intermediates, always measure at right angles from the lines. Measure one way and place a small dot with a crayon pencil; then measure the other, and you will have the exact location. When your points are determined, the connecting lines must be delicately drawn. If the student is not averse to receiving any assistance, he will find that a pair of proportional dividers will greatly facilitate his work.

How to Apply the Crayon.—Tortillion stumps are those most used in portrait work, the larger stumps being serviceable in working up the drapery, background, hair, etc.

Load one end of your chamois palette with "*Magic*," "*Perfection*" or other delicate crayon sauce, leaving the other end for Imperial, Conte or any deep intense black sauce. Use the light sauce for delicate and the black for strong work. Take a Tortillion or small paper stump and turn the end gently in the sauce on the palette until a sufficient quantity adheres to it. While many artists hold a stump as a pen is commonly held, the correct manner is to have the thumb and four fingers resting on it, or, more correctly speaking, the "*little finger*" should pass under the stump.

Let your first stroke be upon some portion of the picture where a deep shadow falls, to test the amount of crayon on your stump, and, further, because the stump works lighter as it becomes cleaner. Your first object should be to strengthen and preserve the delicate pencil lines of the sketch, lending especial attention to all details connected with the eyes and mouth, as the likeness, to a large extent, lies in these features—and be careful to avoid sharp, hard lines; your strokes should be short and firm. When all the detail of your sketch has been emphasized and worked up, give your attention to the shadows, dealing with the strongest shadows first and gradually leading up to the lighter shades. Blend your work as nicely as possible; lay the crayon evenly; dark spots and uneven places are bound to occur, and while they can be softened and improved with the stump, you must not overwork your paper in your endeavor to lend "*finish*" to the work. Your main object at this stage is to hold and improve the likeness, and while nicety of execution is much to be desired, you must not attempt too much in that direction at present.

CRAYON AND CHARCOAL DRAWING—Continued.

INSTRUCTIONS IN THE ART OF CRAYON DRAWING PORTRAITURE—Continued.

The Hair.—The error the beginner is most likely to fall into in his attempt to portray this part of his subject is that of "over-execution" and a belief that hair should be represented by minute lines, while, as a matter of fact, the best results are obtained by great freedom of treatment. A larger stump should be used for this purpose. The strokes should run in the direction in which the hair naturally lies, and while too much attention cannot be given to the general form, masses of light and shade, etc., an absolute avoidance must be had of any attempt to draw each hair.

The Eye may be termed as the key to both the likeness and expression, and the greatest care must be exercised in its execution. Draw the upper lids, just shading them delicately and working toward the eyebrows. Strengthen the pupil, using great care to preserve the "high light"—now work up the iris, putting in all detail. You will note that the upper part is usually darker than the lower, a shadow being cast by the brow and eyelid. If you should chance to destroy the high light, it can be scratched in with a penknife.

The Drapery should be worked up with a large stump, using Conte or Imperial Sauce Crayon. Carefully preserve your drawing and values, and let your work be broad and strong.

Sepia Ground Backgrounds.—The safest background for the beginner, and at the same time one of the most artistic, is the Sepia, or water color ground. With charcoal, string and tack, in the manner described in the beginning of this article for making lines on the paper, make a line across the top and down each side of the strainer, about two inches from the edge. Prepare a water color wash of Sepia and water mixed until it is about the color of weak tea. This background is to be applied after the pencil sketch is made, but before any further work is done. Take a camel hair brush about one inch wide and with clear water wet the paper inside the lines and around the face and figure down to the shoulders, or if the side lines fall beyond the figure, to the bottom of the strainer. Remove the surplus moisture, if any, and filling your brush with the Sepia wash go over the dampened part of the paper, beginning at the top and using great care not to get beyond the lines or inside the outline of the face and figure. Lay the color evenly, and when you work down to the shoulders dip your brush in clear water again and blend the color off into the paper about opposite the arm-pits. The wrinkles caused by wetting the paper will all disappear when it dries. For a child's head or fancy picture a circle may be substituted for the square-shaped water color tint. Burnt Umber or any other delicate tint can be used in place of the Sepia.

Cloud Backgrounds are worked with a large paper stump. The student should strive to lend a broken airy effect to grounds of this description. The principal suggestion we have to offer is that the darkest effects should be next to the lightest side of the head, and the brightest effects on the shadow side; further, that the outer and upper sides must fade away with the utmost delicacy.

Flat Backgrounds.—Fold a piece of chamois skin and touch the rounded edge into the delicate sauce; apply to the paper in broad even strokes. Crush a piece of tissue paper in your hand and rub over it over all to soften the effect. Take out dark spots with pointed rubber and work delicately over light spots with pointed crayon pencil.

Order of Treatment in the matter of shading the picture: first, drapery; second, background; third, hair; last, head.

Finishing.—When you have fully worked up all the details of your portrait, not forgetting the hair, drapery, and background, you will notice that your work is full of light and dark spots, and presents altogether a very unsatisfactory appearance. Having done all that you can with the stump without endangering the loss of likeness, you lay down your palette and stumps and take up your pointed rubber, which is fastened in the end of a crayon-holder, that you may the more easily handle it; it is well to have a tortillion stump secured in the other end. Place a rubber cleaner (see page 158) near at hand, and you are ready to begin the tedious part of the work. If you were skillful in the first part of the work, there would be little remaining to be done; but the work of "finishing" a crayon portrait ends only when you are tired and throw down your tools—but you have this before you: *the longer you work the better will the results be.* If, when you reach this point of the work, you have a likeness, the battle is fairly won, and even if the likeness has

CRAYON AND CHARCOAL DRAWING—Continued.

INSTRUCTIONS IN THE ART OF CRAYON DRAWING PORTRAITURE—Continued.

suffered during the process of shading and working up, "*finishing*" is calculated to in a large degree restore it. "Finishing" may be briefly described as taking out the dark spots with a pointed rubber and filling in the light spots with a tortillion stump and crayon pencil. Begin with the dark spots. Do not attempt to clean up any one portion of the picture, for by so doing you run the chance of losing the likeness. Glance your eye over the entire picture and with the point of your rubber take out the most apparent dark spots. The longer you look the more they will appear, and when the largest are gone the next in size will stand out in bold relief. Where light spots attract your eye, reverse your crayon-holder and touch them with the tortillion stump. As we have said, you can apparently keep this up forever, but only remember that *now every stroke you make improves your portrait*. When you imagine all the spots, both light and dark, are gone, look at your picture with *half-closed eyes* and you will discover a hundred more that need either the rubber or the stump. When you feel you can do no more with the stump, take a crayon pencil, carefully sharpened on your rubber sharpener, and proceed as before. When you have decided that you will work no more on it, *not before*, take a piece of rumpled tissue paper and rub it gently over the whole. It is a good plan to put your work aside when you think you are done with it. When you next examine it, you will find plenty of *spots* that demand your attention.

Methods.—Flat Method.—A crayon portrait executed in accordance with the instructions already given, is said to be done by the "Flat Method;" and many of the most prominent monochrome artists of to-day hold that it is the only legitimate and artistic manner in which to execute crayon portraits.

Oblique Hatching.—This method of handling, for both the flesh and drapery, consists of short strokes, the one parallel to the other, about the width of an ordinary tortillion stump stroke; these are lightly crossed by other parallel strokes at acute angles, but care must be exercised not to have them too oblique, and never at right angles. Before cleaning up with the rubber this criss-cross work will present a very crude appearance, but after finishing the effect is both pleasing and artistic.

Complex Hatching.—Hatching of all kinds can be justly compared with learning to write. We have first to learn the formation of the letters themselves; later, the pen forms them involuntarily. So with the technical means employed in our efforts to portray the texture of flesh and drapery, in the beginning we must adhere strictly to the rules laid down; but as we progress we will get the effect without effort. The stroke used in hatching, and flat work, as well, should be delicately and lightly made; if we are working up a deep shadow, our stump must be heavily loaded with black crayon, but the stroke must be lightly made—without pressure. Rubbing will only serve to destroy the tooth of the paper, and give the work a muddy appearance. The lighter the touch the more transparent and beautiful the result. Complex hatching is the most difficult of all methods to master, and from a description would seem to be both tedious and crude, while, on the contrary, it is not only expeditious but artistic to the last degree. It is employed in flesh work only, and the manner of execution consists of delicate strokes, from three-quarters to one inch long, the distance between the strokes being equal to the width of the stroke itself, the number of strokes made to cover a space equal to the length of the stroke. These parallel strokes covering a space from three-quarters to one inch square are now crossed at right angles, dividing the space covered into minute squares of the size made by the crossing of the lines themselves. A stroke is now made from the upper right-hand corner of the square, which, we say, is from three-quarters to one inch in dimension, to the lower left-hand corner, and strokes parallel to it are drawn to again cover the entire square. Now a stroke is made from the upper left-hand corner to the lower right-hand corner, and strokes parallel to this last line are again drawn over the entire square, so that we have a square about three-quarters to one inch in size crossed by parallel lines drawn in four different directions. To this square is added a second and a third, and so on, until the entire face is covered. You, of course, begin with the darkest shadows, and gradually work up to the lightest shades, using very dark strokes in the deep shadows, and the most delicate touch possible in the high lights—your stump being heavily loaded with crayon sauce in the former, and being almost free from crayon in the latter case. It is remarkable how one square properly drawn will blend into the adjoining square, the connection being almost imperceptible. In "finishing" complex hatching you do not attempt to remove, but rather to preserve, the *little spots*, and devote your attention to cutting up the larger spots into little ones, using the stump for the light and the rubber for the dark spots.

CRAYON AND CHARCOAL DRAWING—Continued.

INSTRUCTIONS IN THE ART OF CRAYON DRAWING PORTRAITURE—Continued.

Conclusion.—In executing a crayon portrait, remember that the likeness is of paramount importance. Study your original well; hold the likeness, even at the sacrifice of execution; subordinate the appearance of the work itself, and do not attempt too much in the way of nicety of detail until your drawing proper is complete and you come to the point of finishing, when you can correct much of the crudity of your work without endangering all that makes a portrait valuable—the likeness. And in all your work avoid *real* lines. The effect given by a delicate stroke of the stump is soft, broken and artistic; nothing destroys the appearance of your work so much as sharp, hard lines. This is especially true of the dividing line between the lips, the detail about the eyes, the drawing of the hair, etc.; and above all do not have the outline of your figure sharp and hard, or your work will have the appearance of being cut out and pasted against the background. The outline should always be broken, absolutely ragged, if you must, but never sharp and clearly defined.

CHARCOAL DRAWING.

Charcoal drawing might be aptly termed the *Short-hand of Art*, for by no other means can the artist so rapidly and effectively put his thoughts on paper. It is, therefore, admirably adapted for sketching and learning to draw. Charcoal drawings are readily corrected, and in fact the entire drawing can be obliterated in a moment. For these and other reasons the students of art schools generally, both here and abroad, are first instructed in charcoal drawing. The list of papers used will be found on page 163. Michalet is the best charcoal paper made. Conte, Venetian or Julian charcoal are the preferable brands (see page 153). The paper can be strained (see page 163), mounted on a board, as water color paper (see page 144), or simply fastened to an ordinary drawing board with thumb-tacks, the latter being the usual method employed in art schools.

Flat Grounds are laid with a stump, in the manner described for crayon drawing, or they may be made by taking a stick of charcoal trimmed flat at the end, and passing it over the paper, keeping the tone as even as possible. This tone or tint may be further softened by rubbing it gently with the finger-ends. If by accident too much charcoal has been worked into the paper it may in part be removed and the tone lightened by rubbing it lightly with a soft linen cloth. If it is now too light go over it again with charcoal in the manner just described. All detail is worked up either with a pointed stick of charcoal or the stump.

The entire process of working in charcoal is so simple that instruction seems almost superfluous.

The high lights are taken out by using a rag or chamois for the half tones, and rubber or bread crumbs for the stronger lights.

All charcoal drawings should be fixed (see page 154).

Charcoal work, from the very nature of the materials used, must be "broad," with an absolute avoidance of tiresome detail. It is very effective for landscape drawing, and also suitable for delicate portrait work.



PASTEL PAINTING—Continued.

EXTRA SOFT PASTELS—Continued.

IMPORTANT NOTE.—Many dealers list the No. 6 or $\frac{1}{8}$ size as containing 30 crayons, and probably unintentionally describe the larger boxes as containing a larger number of crayons than is actually the case. The foregoing list will be found correct and applies to Girault's French Pastels of corresponding numbers, wherever listed, as the manufacturer does not vary the number in any instance. Being very fragile, pastels are liable to breakage during transit. Their utility, however, is not impaired thereby. As we import direct, the condition of pastels purchased of us is naturally more perfect than where the goods are subjected to handling and reshipment.

GIRAULT'S HALF-HARD PASTELS.

					Per box.
1764	$\frac{1}{8}$ size boxes, with 12 crayons, assorted colors.....				\$0 60
1765	$\frac{1}{8}$ " " 12 " Green, assorted shades.....				50
1766	$\frac{1}{8}$ " " 12 " Grey, " "				50
1767	$\frac{1}{4}$ " " 25 " assorted colors				65
1768	$\frac{1}{2}$ " " 50 " " "				1 35
1769	$\frac{3}{4}$ " " 75 " " "				2 00
1770	Full " " 100 " " "				2 75
1771	Full " " 150 " " "				4 00
1772	Double bottom " 200 " " "				5 50

Half-hard pastels are used for working up detail, such as the lines about the eyes, stems, branches of trees, etc., etc.

GIRAULT'S HARD PASTELS—Crayons Assorted.

First Quality.

In Round Paper Boxes.

		Each.	Per doz.
1773	Number of shades in box, 6	\$0 15	\$1 80
	Number " " 12	25	3 00
	Number " " 18	35	4 20
	Number " " 24	45	5 40
	Number " " 30	55	6 60
	Number " " 36	60	7 20
	Number " " 48	80	9 60

Second Quality.

In Round Paper Boxes.

		Each.	Per doz.
1774	No. of shades in box, 6	\$0 10	\$1 20
	No. " " 12	15	1 80
	No. " " 18	20	2 40
	No. " " 24	25	3 00
	No. " " 30	30	3 60
	No. " " 36	35	4 20
	No. " " 48	45	5 40

Ordinary.

		Each.	Per doz.
1775	No. of shades in box, 6	\$0 05	\$0 50
	No. " " 12	10	1 00
	No. " " 18	15	1 50
	No. " " 24	20	2 40

Hard pastels are used for sketching from nature on white paper that has considerable tooth, and are also frequently substituted for half-hard, or used in connection with them.

SOFT PASTELS.

Lefrance & Co.'s Mke. In Flat Wood Boxes. Superior Quality.

				Per box.
1776	No. 6, $\frac{1}{8}$ size boxes, 26 crayons, assorted colors.....			\$1 00
1777	No. 6, $\frac{1}{8}$ " 26 " deep Grey only.....			1 50
1778	No. 6, $\frac{1}{8}$ " 26 " Blues only.....			1 50
1779	No. 6, $\frac{1}{8}$ " 26 " Greens only.....			1 50
1780	No. 6, $\frac{1}{8}$ " 26 " Browns only.....			1 50
1781	No. 6, $\frac{1}{8}$ " 26 " Vermillion only.....			8 00
1782	No. 5, $\frac{1}{4}$ " 42 " assorted colors			1 50
1783	No. 4, $\frac{1}{4}$ " 58 " " with Carmine.....			2 00
1784	No. 3, $\frac{1}{2}$ " 64 " " "			2 75
1785	No. 2, Full " 129 " " "			5 00
1786	No. 1, Dble. bottom 154 " " "			7 20

Lefrance & Co.'s pastels are the most brilliant made.



PASTEL PAINTING—Continued.

THE "SCHOLAR'S" BOX.

Boxes of Materials for Pastel Painting.



No. 1787.

- 1787** The "Scholar's" Box, polished wood. Containing 30 soft pastels, assorted colors; bottle of fixatif; folding tin atomizer; leather stumps; grey paper stumps; tortillions; brass crayon-holder; pointed rubber; black Conte crayons; thumb-tacks; pastel paper and chamois..... Each, \$2 00
- 1788** The Michael Box, polished wood. Containing 64 soft pastels, assorted fine colors; bottle of fixatif; folding tin atomizer; leather stumps; grey paper stumps; tortillions; pointed rubber; brass crayon-holder; black Conte crayons; thumb-tacks, pastel paper and chamois..... Each, \$3 50

PASTELS IN SINGLE STICKS.

(GIRAULT SOFT PASTELS.)

It has been a long-felt want by the artist, as well as the dealer, to be able to purchase and supply pastel colors in single tints, and these in any quantity desired. This urgent demand we have met by importing Girault's *full line* of extra large pastels in separate shades, and we are gratified to mention that during the very short introduction they have had, this new branch has been welcomed by all interested. There is a general revival of the art of pastel painting at present, and the low prices we have set, the excellent quality and convenient packing, will tend to greatly increase the present interest shown.

LARGE STICKS.

- 1789** Complete set (containing 251 large sticks, including all the extra colors of Carmines, Reds, Lakes, Maroons, Purples, Blues, Greys and Yellows. In handsome case. Would cost, separately, \$18.50)..... \$12 00
- 1790** Portrait and Figure Box (as selected by the most eminent pastel artists:)
- | | |
|------------------------------------|------|
| Large box, (100 large sticks)..... | 6 00 |
| Medium box, (75 " ")..... | 4 50 |
| Small box, (50 " ")..... | 3 00 |
- 1791** Landscape and Marine box (as selected by the most eminent pastel artists:)
- | | |
|------------------------------------|------|
| Large box, (100 large sticks)..... | 6 00 |
| Medium box, (75 " ")..... | 4 50 |
| Small box, (50 " ")..... | 3 00 |
- Separate colors put up in Leatherette boxes of 12 sticks of one shade.
- 1793** Sample Card of Soft Pastels.—(Sample card of 60 colors, which taken in connection with our price list will enable you to order any of the 251 shades, and get the exact color and shade you want.) Price, per card..... 25

PASTEL PAINTING—Continued.

PASTELS IN SINGLE STICKS—Continued.

1794

BLACK.

160. Black..... Per stick, \$0 06 Per doz., \$0 60

1795

WHITE.

169. White..... Per stick, \$0 06 Per doz., \$0 60

BROWNS.

1796

Each, 6c.; per doz., 60c.

No.	
1.	Vandyke Brown, Extra Deep
2.	Deep
3.	Medium
4.	Light
37.	Brown Pink, Deep
38.	Medium
39.	Light
40.	Extra Light
41.	Pale
42.	Extra Pale
49.	Cologne Earth
50.	Cassel Earth
59.	Sepia, Deep
60.	Medium Deep
61.	Medium
62.	Light
71.	Purple Brown, Extra Deep
72.	Deep
73.	Medium
101.	Burnt Sienna
102.	Deep
103.	Burnt Umber
104.	Deep
105.	Black Brown, Medium
106.	Deep
107.	Extra Deep
134.	Dark Brown, Extra Deep
135.	Deep
136.	Medium
137.	Reddish
152.	Buff Brown, Deep
153.	Medium Deep

No.	
154.	Buff Brown, Medium
155.	Medium Light
156.	Light
157.	Extra Light
158.	Pale
159.	Extra Pale
170.	Brown Earth, Extra Deep
171.	Deep
172.	Medium
173.	Light
174.	Extra Light
175.	Pale
176.	Extra Pale
196.	Warm Brown, Extra Deep
197.	Deep
198.	Medium Deep
199.	Medium
200.	Light
201.	Extra Light
215.	Raw Sienna, Deep
216.	Medium
217.	Light
218.	Extra Light
219.	Pale
220.	Extra Pale
233.	Golden Brown, Extra Deep
234.	Deep
235.	Medium
236.	Light
237.	Extra Light
238.	Pale

BLUES.

1797

Each, 6c.; per dozen, 60c., unless otherwise priced.

No.	
81.	Cobalt, Deep, per stick, 15c.; doz., \$1 50
82.	Medium " 10c.; " 90
83.	Light
84.	Extra Light
85.	Pale
86.	Extra Pale
108.	Prussian Blue, per stick, 15c.; doz., \$1 50
109.	Light, " 10c.; " 90
110.	Army Blue, Extra Deep
111.	Deep

No.	
112.	Army Blue, Medium
113.	Light
114.	Extra Light
227.	Robin Egg Blue, Extra Deep
228.	Deep
229.	Medium
230.	Light
231.	Extra Light
232.	Pale

PASTEL PAINTING—Continued.**PASTELS IN SINGLE STICKS—Continued.****PURPLES.****1798** Each, 6c.; per dozen, 60c., unless otherwise priced.

No.	No.
19. Purple, Deep, per stick, 15c.; dozen, \$1 50	22. Purple, Light
20. Medium	23. Pale
21. Medium Light	24. Extra Pale

REDS.**1799** Each, 6c.; per dozen, 60c., unless otherwise priced.

No.	No.
5. Brown Vermilion	65. Scarlet Lake, Deep
6. Scarlet Vermilion, Deep, 10c.; doz., 90c.	66. Medium
7. Light	67. Light
8. Flash Pink, Deep	68. Extra Light
9. Medium Deep	69. Pale
10. Medium	70. Extra Pale
11. Light	74. Maroon, Ex. D'p, stick, 25c.; doz., \$2 50
12. Extra Light	75. Deep " 15c.; " 1 50
31. Light Red, Dark	76. Medium
32. Medium	77. Light
33. Light	78. Extra Light
51. Venetian Red	79. Pale
52. Carmine..... Per stick, 60c.; doz., \$6 00	80. Extra Pale
53. Carmine Lake " 35c.; " 3 25	138. Indian Red, Deep
54. Rose Madder " 20c.; " 1 75	139. Medium Deep
55. Light	140. Medium
56. Extra Light	141. Medium Light
57. Pale	142. Light
58. Extra Pale	143. Extra Light
63. Brick Red	144. Pale
64. Scarlet Lake, Ex., stick, 15c.; doz., \$1 50	145. Extra Pale

GREENS.**1800** Each, 6c.; per dozen, 60c., unless otherwise priced.

No.	No.
13. Bronze Green, Extra Deep	178. Olive Green, Medium Deep
14. Deep	179. Medium
15. Medium Deep	180. Light
16. Medium	181. Extra Light
17. Medium Light	182. Pale
18. Light	183. Extra Pale
34. Jaune Green, Deep	191. Turquoise Green, Extra Deep
35. Medium	192. Deep
36. Light	193. Medium Deep
128. Pea Green, per stick, 15c.; per doz., \$1 50	194. Medium
129. Medium	195. Light
130. Light	209. Sea Green, Deep
131. Extra Light	210. Medium
132. Pale	211. Light
133. Extra Pale	212. Extra Light
146. Leaf Green, Extra Deep	213. Pale
147. Deep	214. Extra Pale
148. Medium Deep	239. Grass Green, Deep
149. Medium	240. Medium
150. Light	241. Light
151. Extra Light	242. Extra Light
177. Olive Green, Deep	243. Pale

PASTEL PAINTING—Continued.**PASTELS IN SINGLE STICKS—Continued.****GREYS.****1081**

Each, 6c.; per dozen, 60c., unless otherwise priced.

No.		No.	
43.	Purple Grey, Ex. Deep, stick, 15c.; per doz., \$1 50	165.	French Grey, Deep
44.	Deep	166.	Medium
45.	Medium	167.	Light
46.	Light	168.	Extra Light
47.	Extra Light	184.	Slate Grey, Extra Deep
48.	Pale	185.	Deep
87.	Monochrome, Extra Pale	186.	Medium Deep
88.	Pale	187.	Medium
89.	Light	188.	Light
90.	Medium	189.	Extra Light
91.	Medium Deep	190.	Pale
92.	Deep	202.	Green Grey, Extra Deep
93.	Extra Deep	203.	Deep
115.	Blue Grey, per stick, 10c.; per doz., 90c.	204.	Medium
116.	Deep	205.	Light
117.	Medium Deep	206.	Extra Light
118.	Medium	207.	Pale
119.	Light	208.	Extra Pale
120.	Extra Light	221.	Warm Grey, Extra Deep
121.	Pale	222.	Deep
161.	Black Grey, Extra Deep	223.	Medium Deep
162.	Deep	224.	Medium
163.	Medium Deep	225.	Light
164.	Medium	226.	Extra Light

YELLOWS.**1802**

Each, 6c.; per dozen, 60c., unless otherwise priced.

No.		No.	
25.	Cadmium, Pale, per stick, 10c.; doz., 90c.	123.	Naples Yellow Reddish, Medium
26.	Jaune Brilliant, Medium	124.	Light
27.	Light	125.	Extra Light
28.	Extra Light	126.	Pale
29.	Pale	127.	Extra Pale
30.	Extra Pale	244.	Yellow Ochre, Deep
94.	Canary, Extra Pale	245.	Medium
95.	Pale	246.	Medium Light
96.	Extra Light	247.	Light
97.	Light	248.	Extra Light
98.	Cadmium Yellow	249.	Pale
99.	Deep	250.	Extra Pale
100.	Orange	251.	Extra Extra Pale
122.	Naples Yellow Reddish, Dark.....		

per stick, 10c.
per doz., 90c.

SUPERIOR FRENCH PASTEL PAPERS.

Sandy Surface.

	Each.	Per doz.	Per quire.
1803 Pastel Paper, Royal size, 19x24 inches.....	\$0 25	\$2 50	\$ 5 00
1804 Pastel Paper, Imperial size, 21x28 inches	30	3 00	6 00
1805 Pastel Paper, Columbian size, 24x34 inches	45	4 50	9 00
1806 Pastel Paper, Grand Aigle size, 26x40 inches	60	6 00	12 00

This is the paper most generally used for pastel work. It may be mounted on strainers in the same manner as water color or crayon paper (see page 163), or stretched on drawing boards, as described on page 144, or simply fastened to the board with thumb-tacks. The surface holds the pastel well, and the texture admits of considerable working.

PASTEL PAINTING—Continued.**SUPERIOR FRENCH PASTEL BOARDS.**

Sandy Surface.

		Each.	Per doz.
1807	Pastel Board, size 7x11 inches	\$0 15	\$1 60
1808	Pastel " " 11x14 "	25	2 60
1809	Pastel " " 14x22 "	45	5 25
1810	Pastel " " 18x22 "	50	5 60
1811	Pastel " " 20x24 "	55	6 60
1812	Pastel " " 21x26 "	60	7 00
1813	Pastel " " 22x28 "	65	7 65

The advantage that pastel board has over pastel paper is that it is ready for use and does not require mounting or preparation of any kind.

ALOE'S PASTEL BOARDS.

Sandy Surface.

1814	22x28 inches, thin	Each, \$0 40	Per doz., \$4 50
-------------	--------------------------	--------------	------------------

A fair board, but admitted to be inferior to the French.

FRENCH WHITE MONOCHROMATIC BOARDS.

A Very Delicate White-Sanded Surface.

1815	22x28 inches.....	Each, \$0 45	Per doz., \$4 80
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A monochromatic board is a thin pastel board, with a very fine sand used on its surface. The "French White" is the most delicate board made, and for fine work is without an equal; but its surface will not take anything like the amount of pastel the heavier boards will hold.

ORDINARY FRENCH MONOCHROMATIC BOARDS.

Fine Sandy Surface.

1816	22x28 inches	Each, \$0 50	Per doz., \$6 00
-------------	--------------------	--------------	------------------

A thin pastel board with finer sand on surface.

FRENCH PASTEL BLOCKS.

24 Sheets Pastel Paper.

		Each.
1817	Size, 8x12 inches	\$2 25
1818	Size, 10x14 "	2 75

MOUNTED PASTEL STRAINERS AND STRETCHERS.

For Pastel Painting.

1819	Size, Inches.	Pastel Paper, Sandy Surface. On Wooden Strainers, Muslin Back.	Plain Pastel Canvas on Wooden Stretchers.	Velvety Surface Pastel Can- vas on Wooden Stretchers.
	14x17.....	\$0 50	\$0 50	\$0 65
	16x20.....	60	60	85
	18x22.....	70	75	1 15
	20x24.....	75	85	1 25
	22x27.....	85	1 00	1 35
	25x30.....	1 00	1 15	1 60
	29x36.....	1 40	1 50	2 00
	30x40.....	1 75	1 75	2 45

Pastel paper is mounted on strainers in the same manner as water crayon paper (see page 163).

Pastel canvas is stretched the same as oil canvas (see page 20).

Steinbach's paper for pastel work (see page 163).

PASTEL PAINTING—Continued.

SUPERIOR QUALITY PASTEL CANVAS.

Sandy Surface.

	Per yard.	Per roll.
1820 36 inches, plain.....	\$1 25	\$6 00
1821 36 inches, velvety, surface.....	1 50	7 50
1822 36 inches, plain, "super-super".....	1 50	8 00
1823 36 inches, velvety surface, "super-super".....	1 75	8 75

Pastel canvas is mounted on stretchers in the manner described for mounting oil canvas (see page 20). It is superior to any other material for pastel work.

SUNDRY ARTICLES USED IN PASTEL PAINTING.

Stumps.....	See page 156
Chamois Palettes	" 155
Tortillions	" 155
Mahl-Sticks.....	" 26
Atomizers	" 154
Crayon Holders	" 155
Easels.....	" 27 to 29
Drawing Boards.....	See Index.
Thumb Tacks	"
Brushes for Dusting off Color.....	"

INSTRUCTIONS IN THE ART OF PASTEL PAINTING.

Preparatory Remarks.—Pastel painting is one of the most important and delightful branches of art. Unlike oil color, it is simple and easy; and a study may be completed in one sitting, if the artist be skillful. This facility and rapidity arise from the use of dry color, which may be removed at will, or superseded, left and resumed at any stage, retouched, improved, and finished to any degree of elaboration, and when completed or left for the time-being there are no brushes to be cleaned.

Pastel is very useful for sketching compositions, and trying effects and arrangements of color in pictures. For such a purpose it is certainly more manageable than oil color, and has the advantage of enabling the artist to avail himself at once of any current ideas which may strike him. By such means he can more readily arrest and express his conceptions than by the less rapid process of oil painting.

In this department of art, the place of the pencil and the brush is supplied by the crayon itself, in all colors and tints; but, as we shall hereafter show, the finger is the most efficient agent in blending the breadths, or a stump is substituted for finger.

Every color is graded into tints, varying from the deepest shade to the lightest—the latter is always one degree removed from White.

It will be understood that as soon as a pastel picture is finished, it will be necessary to secure it under glass, for so slightly tenacious is the crayon in some passages where it may have been repeatedly applied with a view to brilliancy, that it might be blown from the surface of the paper. These works are liable also to injury from the same causes that affect oil and water color pictures; indeed, they are more susceptible than either. Exposure to the sun, which brightens and purifies, to a certain extent, oil pictures, is to be avoided in the case of pastels, as in a short time the sunlight will destroy the freshness and delicacy of the color. Moisture, also, an enemy to both oil and water color paintings, is perhaps more immediately fatal to pastel painting. If the colors and gradations are not entirely subdued by moisture, they are sure to be changed and enfeebled. Other results of damp are livid spots and stains, which frequently destroy valuable works by appearing in the most important parts, as the face of a portrait, or the sky of a landscape; and the difficulty in repairing these injuries arises from the impossibility of matching the faded tints with new pastels.

But with common care pastel drawings are as easily preserved as any other works of art. In France especially pastel works of the best period, showing the perfection of the art, are by no means rare, and these generally are in excellent condition.

PASTEL PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PASTEL PAINTING—Continued.

It is probable that much of the change which the earlier pastel works may have undergone has resulted from the imperfection of the materials employed. This amount of injury, whatever it may have been, will, in future, be obviated by the superiority of manufacture of modern pastels.

The best pastels are made in France, and the Germans are well advanced in the manufacture of certain lines of pastels, but there are no American pastels that we have seen that are not gritty, many of the colors being absolutely hard, while the industry is too young for the matter of *permanency* to be passed upon.

The Papers, Boards and Canvas most suitable for pastel painting are those which will best hold and support the loading of the crayon, and which will best serve as a base for clear and tender tints; but especially those which will retain the fine powder of the pastel. (See pages 174-176.) But almost any kind of paper may be used, by being previously rubbed with cuttle-fish, if it have a very smooth surface.

The Method of Working.—The practice of painting in pastels consists of drawing the outline, laying in the tints in their graduated shades, and blending them into harmony with a stump or the forefinger of the right hand. Some artists use the finger covered with a portion of a white kid glove; but the leather has this disadvantage: in working very delicate colors, they are likely to become vitiated by other colors being carried into them by the glove.

A rapid and ready method of executing a small portrait, landscape, or other design, consists in working the pastel lightly by means of a chamois or grey paper stump. When the sketch is made, the tints are laid in with the stump, and when the breadths are completed, the whole is modeled, retouched, and hatched with pastels of somewhat harder texture, called "half-hard pastels," which are employed to determine outline, to define form, and communicate sharpness here and there where it may be necessary, and ultimately to correct the drawing.

But the student must be cautioned that the breadth of the stump is the rule—the point of the crayon is the exception. If there be more than a certain proportion of sharp lines in a portrait or landscape it becomes hard and unlike nature.

Portraiture.—The execution of a life-sized head or portrait is thus carried out: The outline is drawn with either brown or red pastel; grey is also used—in short, the color of the pastel employed is entirely discretionary. The drawing must be delicate, in order that the pastel does not fill the texture of the paper, so as to render the markings difficult to be worked over and obliterated by the necessary color.

When the outline is complete, the breadths are made out by means of a brown pastel and a stump, working especially for the degrees of shade.

When the likeness is as satisfactory as it can be made in a first sketch, the complexion may then be proceeded with, beginning with the lights. The Whites, Yellows, Reds, and Greys must be worked in by superposition, and blended to an imitation of the reality of nature.

From the highest lights the student must proceed by gradations to the deepest shades, and these, in order to secure roundness and substance, must be put in equal in strength to nature; after which the middle tones must be very carefully blended, so as to unite the lights and shades by imperceptible gradations. The markings must be definitely made out, and the reflexes also, if there be any.

As the fresher tints occur principally in the lights, it would be well to keep the color rather high, and of a warm tone, in order to reserve the brightest and most effective tints till the last. When all the tints have been laid in, in a manner somewhat resembling mosaic—when the head is in a satisfactory state as to form, color, and expression—then, with the forefinger, a stump, or the little finger, the whole is passed over, and the colors worked and blended into harmony. In this operation nothing will be found so effective as the finger.

The result of this treatment will be a blending and softening of the whole work, the breadths as well as the outline, and also a marked reduction in the freshness and spirit of the color; and hence the necessity of a forcible sketch to work upon.

When this operation is concluded, the pastels will be again used to bring up the color and tone to those of life—to modify and correct those which may require retouching. Those passages which are heavy must be relieved, and those which may be too cold or too warm must be reduced to harmony.

Working with the finger will be found at once the most available method of managing the pastels, and the learner will soon acknowledge that the most desirable results are unattainable by

PASTEL PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PASTEL PAINTING—Continued.

any other means. In his earliest essays in pastel the student generally relies too much upon the finger, and works down his tints to tameness and insipidity; whereas, with some observation and a little experience, the power of the finger is such as requires but a few touches, to blend and harmonize the tints into a fresh and life-like imitation of the model. However, this requires the exercise of care and judgment.

In coloring the principal difficulty is, of course, the rubbing in of the proper tints in the proper places, with the power of representing, by blending, any tint that may not be found in your limited supply of pastels. Complex tints are of continual occurrence in every set of features that has come under our notice.

Having laid in the tints according to the natural complexion, and in their strictly relative gradations, it will be necessary before touching the work with the finger to be certain that all are laid in the proper places, and all as nearly as possible respectively disposed in their proper degrees. If this be the case—and a little experience will enable the beginner to judge of it—there remains but little work for the finger to perform; and the less the colors are worked, the more fresh and transparent they will appear.

But if tints of remote degrees be placed in juxtaposition, the tint resulting from these is not only at once false, but the labor of the learner becomes increased five-fold, if it be not at once necessary to remove the whole of the color.

The skillful pastel artist does not abuse the power which the use of the finger gives; he knows exactly the utmost force of the pastel, and does not, therefore, destroy its best quality. In works of art, it is more difficult to learn where to stop than how to begin. If the tints be properly selected, the office of the finger is only to reconcile the colors and give breadth to the whole by removing any distinctions of tone that may appear.

The errors into which a learner usually falls arise from the constant and indiscriminate use of the finger. The results of this are as already stated—the enfeebling of the drawing, the loss of outline, and the reduction of the tints to flatness and opacity. The student is also liable to dwell upon detail, and to neglect the breadths—a practice that produces defects the more embarrassing, as they cannot easily be remedied.

Drapery.—The draperies, dress and accessories must be treated with greater freedom and decision than can be used in the features; and this broad handling will, in contrast with the delicate drawing of the features, serve to give value to the latter.

Backgrounds.—For backgrounds there is no arbitrary rule; a head may be relieved by a light background or by a dark background, and with good effect by either; although with the latter it would be much more forcible than with the former. But a dark background is not always suitable, especially for feminine portraiture.

Backgrounds are not to be rubbed in under the impression that any dark will relieve any light, or that any middle tint that may be cut by shade will suffice. It will be understood, as a general rule, that the background immediately around the head should be lower in one than the half-tints of the face, and lighter than the shades, to give air and space—to bring out the head.

Landscapes are usually executed in the method just described for portrait work, while the following chapter is devoted to an entirely different manner of treatment. For a study of texture and detail handling of pastels for landscape in the ordinary method, we would suggest that the student study from studies that are *fac-similes* of the work, where every stroke of the crayon is produced. There are many such on the market, costing but a trifle.

Allusion has already been made to the utility of pastel in landscape sketching. We now purpose to set forth the principles of that art according to the practice of Mr. Henry Bright, whose works, in comparison with all that has hitherto been done in this department, are pre-eminent.

The manipulation which the experience of this artist has induced him to adopt, is entirely different from all other methods employed in the execution either of portraiture or landscape. According to his manner some of the most beautiful qualities of oil painting are realized, as texture, transparency and even glazing.

Materials.—The pastels used are both the soft and half-hard, and at times the hard. Between the half-hard pastel and the paper there is a certain affinity, technically called a “bite,” to which the artist is indebted for much of the beauty of his work.

White Conte crayon is employed not only for the lightest touches, but to blend and qualify other crayons into which it may be worked. No. 3 is generally used for this purpose.

PASTEL PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PASTEL PAINTING—Continued.

The black Conte crayons are also of the utmost importance. Nos. 1 and 2, the harder degrees, are used for outlining; and the softest degree, No. 3, may be blended with many colors to reduce their tones. The methods of using this material will be explained as we proceed.

The Paper.—Any of the soft machine-made drawing papers may be used; but it is indispensable that the tone of the paper will be such as will support and bear out the colors of the crayons. The paper, in fact, must supply an available middle tint, for, in this style of pastel painting the color of the paper appears through almost every passage of the finished work. If, therefore, the tone of the paper be either too glaring or too dull, it will be altogether unsuited for an effective and harmonious picture. (See Tinted Crayon Papers, page 163.) Of course, white and cream papers are suitable for many subjects.

The paper used by Mr. Bright, and that upon which his most successful pictures have been executed, is a soft paper, of a low-toned olive tint, which has been found, by long experience, to be better adapted than any other for landscape drawing, as affording an agreeable neutral, upon which warm or cold tones, lights or shadows, may be placed with the best effect.

The paper is attached to a drawing board, by means of thumb-tacks placed at intervals round the edges, so as to secure it by keeping it flat and smooth, while the flat tints are rubbed in; for in this process some degree of force will be necessary.

The paper must be larger than the intended drawing; sufficiently so to leave a margin of an inch or two; for, in working, it is impossible to confine the colors exactly to the proposed size of the drawing.

From the necessarily spirited manner of working, the exact dimensions of the drawing are sure to be exceeded; but when finished, this margin is cut off.

The Sketch and Execution.—The composition must be very lightly defined with the Conte crayon, No. 1, the form of the objects being made out sufficiently to guide the artist in the flat tints of the sky and distances.

The difference between the soft pastel and the half-hard has been already spoken of, and the difference in the manipulation must now be described.

The half-hard pastels being harder than the others, the value of this difference will at once be understood, as soon as the crayon is applied to the paper.

The breadths of the composition are not laid by working with the point of the pastel; but a portion of the crayon, sufficient for the purpose required, is broken off, and applied flat, or lengthwise, to the paper; being held between the thumb and two fingers. In this manner it is worked lightly over those parts of the drawing which it is desired to tint, and the spirit and lightness of the tint is derived from the hardness of the crayon, which is "bitten" by the surface of the paper, and leaves on it a moderate quantity of color.

This tint is rubbed vigorously with the two forefingers, so as to work the color well into the texture of the paper. For the same purpose, also, the breadth of the thumb is employed, and the fleshy part of the palm of the hand. As the operation leaves but little color, these tintings are repeated until the necessary strength of tone is obtained, varying and blending the colors by working them into each other, as the subject may require.

By this means the flat or fundamental tints of the sky are laid; upon these are superposed the clouds and passages of aerial effect, by means of pieces of crayon used lengthwise in the manner above described, working them obliquely, horizontally, or vertically. In this way may be obtained such effects as are procurable by flat tints in water or oil color.

The fundamental breadth of the sky may be brought below the line of the horizon, and it will thus serve as a base whereon to mark the distant mountains, or other extreme passages of the composition, drawing the remote forms with pieces of pastel, held flat or lengthwise. These tints are blended with the fingers, and the tones repeated where necessary.

The distant ridges of the mountains being made out, the middle distance and the nearer objects are approached by the neutral tints; still drawing with broken pieces of crayon, worked obliquely or otherwise, according to the feeling to be expressed. The broken pieces of crayon are used as drawing tools, just as brushes and pencils are employed in oil and water color painting.

The sky and distances exclude the more decided markings which occur as we approach the foreground. Here the black Conte crayons, Nos. 1 and 2, are used, and in the near parts of the picture these are very important.

PASTEL PAINTING—Continued.

INSTRUCTIONS IN THE ART OF PASTEL PAINTING—Continued.

With these Contes all the striking features of the near composition, such as trees, rocks and buildings are drawn, and the material is used in the manner already described; that is, in its length and breadth—broken into fragments, suitable in size to the object to be drawn. Where any fine lines are necessary, these are not made by the crayon cut to a point, but by the sharp edge of the fracture of the crayon.

Each object, after having been drawn in with the Conte, is then appropriately tinted or colored by working over the black markings with the necessary colors. The manner in which this is performed is like the operation of glazing in oil painting; because under the light net-work tracery of the colored crayon the Conte drawing is still visible. By blending, and again drawing with Conte, and again glazing, as often as may be necessary, we approach the finish of the picture, which is completed by sharp and spirited touches of light, put in with the sharpest parts of the fractured end of the colored crayon.

It is advisable that beginners should, for their initiatory essays, select easy subjects, in order to acquire neatness of execution, which is indispensable in pastel landscape drawing. The color should be used but sparingly, and the black crayon should appear as a prominent material in the drawing. And if over the black markings the colored crayon be lightly drawn, color enough will be left to tint the object, without concealing or breaking up the Conte drawing beneath; the surface color forming a light net-work tracery over the black.

We have described the method of using the fractured angle of the black crayon and the colored pastels for lines and markings, whereby the ordinary method of cutting the crayon to a point is dispensed with. A little experience will teach the superior value of this point, in comparison with any that can be formed by a knife. When fine lines or sharp touches are required, the piece of crayon is held in such a manner as will best afford these desiderata. The broken edge is turned and worked round and round, so as to afford the finest lines, as also a variety of broader and broken lines. We offer no apology for dwelling on the utility of the fractured crayon, because the entire spirit and character of the work is dependent on it. In finishing the picture, great use is made of this point—since with it may be drawn details requiring the sharpest lines and touches of the utmost crispness. On the other hand, for the breadths and masses, the crayon is broken into suitable lengths of half an inch or more, and worked according to the feeling desired to be expressed.

The result of the application of the crayon lengthwise to the paper is a broad, clear touch, similar to that of the bristle brush in oil painting; and this touch is made to vary in breadth, according to the manner in which the piece of crayon is held; as it may be worked flatly in its entire length on the paper, or held transversely at any angle, to yield a touch of any breadth, varying from the finest line to its entire length.

Perhaps the great charm and novelty of this method of drawing is the successful imitation of the transparency of oil painting. By attempting to load or rub in color in finishing a work, this beautiful effect is destroyed. The texture of the crayon does not admit of massing color—the beauty of the work depends upon the paper being yet perceptible through the ultimate finish.

It is only in the last sharp finishing touches or points of light that color in quantity and force is required. All the colors laid in the earlier and progressive stages of the work should be laid with a view to the acquisition of transparency.

Any markings too sharp and square may be worked down by the finger, and, when necessary, tints may be worked into those previously laid, leaving wholly or partially all that is necessary for the drawing or color. These markings and retouchings are repeated until the desired effect be obtained; but it must never be forgotten that by an extravagant loading or rubbing in of color the transparency of the work is lost, the result being a coarse, smeary and opaque effect.

In order to impress upon the mind of the learner the stages of the process, we conclude with a brief recapitulation of the heads, of which the first is: the rubbing in of the sky and broad tints.

The breadths of the remoter and nearer distances are laid in with pieces of broken crayon, blended and worked together.

Upon these blended tints objects are made out as approaching the near sections of the composition, the objects and incidents being drawn in with Conte, as well with sharp lines as broad and flat touches. The breadths of the black chalk are glazed over with colored crayons where necessary.

The picture is finished by sharp and crisp touches effected on the near objects with the broken edge of the colored crayon.

NOTE.—If the student does not possess the required skill so necessary to execute large drawings, we would suggest the use of the Photo-Opticon (see page 55).

PASTEL PAINTING—Continued.

Colored Crayon Drawing.

COLORED CRAYON SAUCE.

Colored Crayon Sauce is fast gaining a wide reputation. For beginners, as a substitute for pastel painting, nothing can compare with it, especially in the ease and rapidity with which results can be obtained. With it a portrait, equal in many respects to pastel, can be made as quickly and easily as with black crayon. It is applied by the same methods as black crayon, on common crayon paper, even being used with perfect success on bromide paper, erases readily and blends nicely. By its use a picture may be made entirely in color, or any portion of a black and white picture may be tinted as desired. Every worker in black will be interested in this colored sauce, the methods of application being the same.

With the white, intermediate shades can be made as desired; and by mixing the different colors on the palette, hundreds of intermediate colors and shades can be produced.

We are at present supplying a large number of educational institutions with this line, where it is satisfactorily introduced. We feel that we cannot say too much in its favor.

Color cards showing all of the following colors, each 10 cents.

1824	No.	Bot.		No.	Bot.		No.	Bot.
Naples Yellow	105	10c	Ultramarine Blue.....	200	20c	Burnt Sienna.....	290	10c
Chrome Yellow.....	110	10c	Cobalt Blue.....	205	20c	Raw Sienna.....	295	10c
Yellow Ochre.....	115	10c	Navy Blue.....	215	20c	Sepia.....	300	10c
Am. Vermilion.....	125	15c	Carmine Purple.....	235	30c	Sepia.....	301	10c
Eng. Vermilion.....	130	20c	Emerald Green.....	250	10c	Sepia.....	302	10c
Indian Red.....	135	10c	Olive Green.....	260	10c	Black Grey.....	325	10c
Light Red.....	140	10c	Foliage Green.....	265	10c	Blue Grey.....	330	10c
Venetian Red.....	145	10c	Foliage Green.....	266	10c	Green Grey.....	335	10c
Maroon.....	150	30c	Foliage Green.....	267	10c	Slate Grey.....	340	10c
Carmine, Ex.....	160	60c	Myrtle.....	270	10c	Warm Grey.....	345	10c
Flesh.....	167	10c	Burnt Umber.....	280	10c	French Grey.....	350	10c
Pink Flesh.....	172	10c	Raw Umber.....	285	10c	White.....	375	10c

1825 Complete boxes (containing 36 bottles, all the above colors)..... \$4 50

1826 Special portrait boxes (containing 12 bottles, as follows:)..... 1 75

Chrome Yellow..No.110	Flesh.....No.167	Navy Blue.....No.215	Sepia.....No.301
Eng. Vermilion.. " 130	Pink Flesh..... " 172	Emerald Green.. " 250	Sepia..... " 302
Carmine, Ex..... " 160	UltramarineBlue " 200	Sepia..... " 300	White..... " 375

1827 Special figure boxes (containing 12 bottles, as follows:)..... \$1 25

Chrome Yellow..No.110	Flesh.....No.167	Navy Blue.....No.215	Sepia.....No.301
Am. Vermilion.. " 125	Pink Flesh..... " 172	Emerald Green.. " 250	Sepia..... " 302
Light Red..... " 140	UltramarineBlue " 200	Sepia..... " 300	White..... " 375

IMPERIAL COLORED CRAYON OUTFITS.

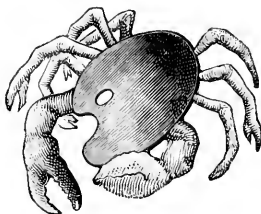
1828 Imperial Colored Crayon Outfits, in strong wooden boxes, containing all the tools necessary for doing the finest work: 12 bottles (different colors) of colored crayon sauce; 3 imperial chamois palettes; 1 each of Nos. 1, 2 and 3 imperial hard paper stumps; 1 No. 2 imperial soft paper stump; $\frac{1}{2}$ dozen imperial tortillion stumps; 1 No. 2 Conte's crayon pencil; 1 eraser; 1 imperial eraser cleaner, and instruction book.....Price, complete, \$2 75

Those intending to avail themselves of a thorough course will find the practice acquired with this outfit of great value, enabling them to make more rapid advancement under instruction.

PASTEL PAINTING—Continued.

INSTRUCTIONS IN THE ART OF WORKING IN COLORED CRAYON SAUCE.

For covering broad surfaces, apply with a piece of cotton, folded carefully, touching the cotton to the sauce, which has been placed either in a chamois palette or in your sauce box. Rub the sauce into the paper gently, commencing always with the darkest portion and gradually working into the lighter parts as the cotton becomes cleaner; let the motion of the hand be that of describing short circles, that the tint may be even and free from streaks. Work in the dark shades with a grey paper stump. Remember to always begin with the darkest portions, and as the sauce works from the stump, approach the lighter shades. The masses of color can be nicely blended with a piece of cheese-cloth used over the fingers. When the sky and broad tones of your picture are laid in and properly blended, the light clouds and high lights may be cut out with an eraser or pointed rubber stump (see page 157), which should be kept well cleaned. The eraser should be sharpened on a sandpaper block (see page 158). It should be wedge-shaped at one end and pointed at the other. The finest lines and points can be taken out with the sharp point of a knife. To draw foliage, give the stump a short, irregular zigzag motion. When you have put in all the detail that you can with the stump, and fully worked up the shadows and tints, you can add further detail, and *strengthen* the picture generally, with a crayon pencil. It will greatly improve the appearance of your work to stipple the entire picture with crayon pencils, using a hard pencil for the lightest parts and a softer pencil for the dark portions. The instructions as laid down for crayon drawing in black and white, apply with equal force to drawing in colored crayon sauce (see pages 165 to 168).



PYROGRAPHY.

(BURNT WOOD OR POKER PAINTING.)

In many ancient Flemish and English hostelrys, which once were the gathering places of artists whom we to-day recognize as masters, travelers have studied with surprise and pleasure the peculiar decoration of the paneled walls. Traced on the wood with a hot iron, in a curious medley of eccentric forms, may be seen the figures of men and beasts, graceful scrollwork, grotesque caricatures, charming and even grand landscape scenes, and faces and forms that are evidently portraits. Time, which has hardened the oak and walnut panels, has also mellowed their color and darkened and enriched the designs which render their surfaces picturesque, and in many instances, if the authorship of the decorations could be fixed, they would be of priceless value to collectors.

The origin of this unique scheme of decoration is not as obscure as it might at first sight appear. In the days when art and conviviality went hand in hand in the Low Countries, and when in England the tavern was a clubhouse, it was the wont of the artists who gathered over pipe and pot of a winter evening, to exercise their passing inspirations on the walls around them, as mementoes of the festive occasion. A poker heated red in the fireplace was their tool. With it they sketched upon the wall the creations of their fancy, and the subjects suggested by discussion, a memory of a scene of nature, an idea of a new style of ornament, a merry burlesque on some event of the evening, and often portraits of each other. There is practically no limit to the variety of these "poker pictures," to give them their conventional title, which have come down to us from the past. The greatest artists of the time are numbered among their creators; Rembrandt and Hals, Brouwer and Teniers, and many more, have thus left records of themselves on the wainscots of the Dutch and Flemish alehouses. In England some of the poker pictures of that eccentric genius George Moreland are preserved among the treasures of great collections. Even in the swift and careless sketches of these jovial gatherings, the possibilities of burnt wood as an artistic medium are revealed, and the results produced in some cases may, without exaggeration, be termed remarkable.

With the changing fashions of artistic life, poker painting became one of the lost arts. But after a century and more of neglect, it was revived. Artists whose travels made them acquainted with these characteristic souvenirs of the past, saw in them a suggestion, which they undertook to realize. Many hands skilled with the brush experimented with the poker, and profiting by the improved methods of modern times, essayed to produce pictures, where the originators of the art had been content with sketches. The soft, warm tints of the burnt wood, and the readiness with which the glowing iron lent itself to the manipulation of a skillful hand, resulted in work of an elaborate and delicate character unknown before. Many poker pictures by famous English artists of the present century are in existence. In our own country the works in this art of Ball Hughes, of Boston, a singularly-gifted and eccentric man, are famous. During the past few years many large and beautiful panels, friezes, and other decorative designs in burnt wood, have been applied in the embellishment of American mansions. They exhibit qualities of drawing, color and suggestiveness of the first order. In producing them the single poker gave place to sets of irons, graduated in size, in order to produce the most delicate and the most vigorous effects, but always miniature pokers, to be heated in the furnace in order to be effective. Now a new device of science simplifies the process, and renders the art, hitherto accessible to only the most dexterous and experienced hands, within the reach of any one of artistic taste who chooses to practice it.

The improved tool invented by Dr. Paquelin, not only completely replaces but vastly improves upon the old irons heated by fire, and renders a popular revival of this delightful old art a certainty. The tool possesses the double advantage of simplicity of construction and of readiness of application. It can be used as easily as a pencil or a pointed crayon, and be made as effective in the delicacy of its gradations. It can be utilized in the studio, and, so convenient is it for carriage, that it can be used in sketching from nature in the open air. In it the iron tool is replaced by a platinum point. The fire of coal or wood by which the iron must be heated is replaced by the steady heat of hydro-carbon vapors, supplied from a reservoir which may be carried in the vest-pocket or suspended from the button of a coat. The degree of heat may be regulated by air bulbs controlled by the pressure of a hand. With a panel of wood before him, and his platinum point in hand, the artist in burnt wood may produce at will the most bold and suggestive sketch or the most elaborately finished picture, in tints varying from the faintest shade of color to the deepest

PYROGRAPHY—Continued.

and richest tones. The Flemish artists who originated the art of poker painting would, with such an implement, have produced masterpieces as immortal as those which have come to us from their easels. With the medium thus offered it, modern art cannot but find a new and valuable outlet for its creativeness. The possibilities of the art of burnt wood engraving can only be surmised, for every experiment with Dr. Paquelin's tool produces new revelations of its diversified effectiveness. With Dr. Paquelin's tool amateur art workers will find an entirely novel medium of productiveness placed at their disposal. The inconvenience and the manifold difficulties of poker painting, excepting to the most skillful and experienced hands, are obviated by it. With the Paquelin tool the amateur may fix upon the panel in indelible lines any design which may be traced upon it with the pencil. Thus, a sheet of tracing paper may be used to transfer any design to the wood. The tool may then be called into play to burn the lines in, and a picture of an original and decorative character will be the result. The subtleties of light and shade and the inflections of color which, in proportion to their elaborateness, constitute a picture, will come to the worker by experiment and experience. By the Paquelin process any of the admirable working designs published by many art journals may be engraved by fire upon wood, and reproductions by cauterization of the more elaborate work of the painter's art. Copies of pictures, of engravings, photographs, etc., come within the possibilities of the process, while the peculiar effect of the fire upon the wood, the softness and richness of line and color, the freedom of design, the force and variety of background and large masses of shadow which may be produced at will, secure to the artist an entirely unique and beautiful result which can be attained by no other means.

The process, moreover, may be applied not only to the production of pictorial effects on wood, but to the ornamentation of leather and to the decoration of furniture, picture frames, toilette articles, book covers, leather hangings and an innumerable variety of other objects in which utility and beauty may be thus combined. Exhibits of burnt wood engraving and of leather ornamented by the Paquelin process have elicited the highest praise from critical journals in London, where the art has already been quite extensively cultivated and where it has figured in the most important exhibitions of the arts and the art industries.

Dr. Paquelin's process which received the Prix Montyon of the Academy of Science of the Institute of France in 1876, the Prix Barbier of the Faculty of Medicine of Paris in 1875-1876, and a gold medal at the Universal Exposition in Paris in 1878, is patented in the United States.

DR. PAQUELIN'S PROFESSIONAL PYROGRAPHY OUTFIT.

The Best Outfit Made



1829	Price, complete with two points (Nos. 1831 and 1832)	\$24 00
1830	Price, " " " " " " and metal reservoir	26 50

NOTE.—This outfit is put up in Morocco case, 7 inches long, 4 inches high and 5 inches wide.

PYROGRAPHY—Continued.

PLATINUM POINTS.



No 1831.

- 1831** Background Point Each, \$7 50



No. 1832.

- 1832** Detail and Tracing Point Each, \$7 50

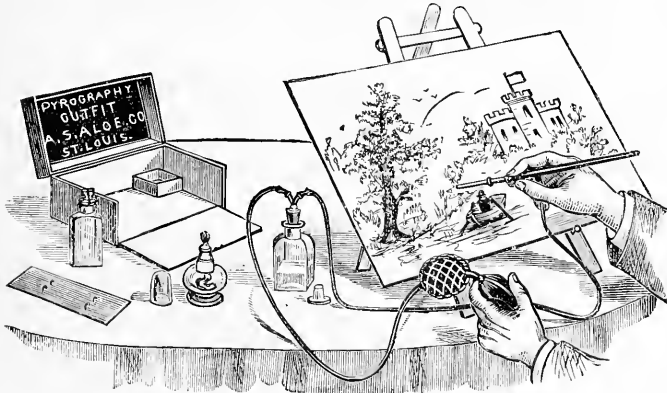
SUNDRIES.

- 1833** Metal Reservoir, new patent..... \$3 00
1834 Glass " 2 25
1835 Metal Lamp..... 2 00
1836 Canulated Handle with lengthening tube..... 2 00
1837 Double-bulb Blow Apparatus..... 2 00
1838 Empty Morocco Case 4 00

Repairing Points, when no hole is burned in platinum, \$2.00.

Points with holes in platinum sheath cannot be repaired.

DR. PAQUELIN'S AMATEUR PYROGRAPHY OUTFIT.



No. 1839.

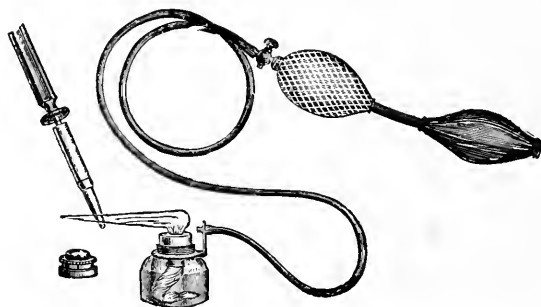
- 1839** *Outfit No. 1* consists of wood box (specially selected so that it can be used to decorate or practice upon) containing: 1 metal pencil (or handle) cased with cork; 1 platinum point; 1 benzoline bottle; 1 bottle for extra supply; 1 India-rubber bellows; rubber tubing; 1 metal union; 1 spirit lamp; 1 glass funnel; 2 pieces of wood, Each, and directions \$ 8 00
1840 *Outfit No. 2*, as above, with 1 additional platinum point..... 12 75
1840a Platinum Points—A (round point) or B (sharp point)..... (PATENTED) 4 25
1841 Metal Pencil (or Handle) 1 25
1842 Rubber Bellows..... 1 00
1843 Union 35
1844 Rubber Tubing..... By foot 05
1845 Rubbers for Union..... By dozen 36
1846 Hand-Book: "Pyrography; or, Burnt-Wood Etching," by Mrs. Maude..... 50

PYROGRAPHY—Continued.

DR. PAQUELIN'S AMATEUR PYROGRAPHY OUTFIT—Continued.

DIRECTIONS FOR USE.

I. To Light the Point.—Hold the platinum part in the yellow alcohol flame until it shows a slight cherry red heat, then press the bulb very gently and slowly, blowing very little gas into the point; if the heat then increases, the burner is lighted and the bulb should be gradually pressed more frequently, until the desired heat is obtained. If the heat should not increase, but die out when the bulb is pressed, it is a sign that the platinum is not hot enough to light the gas;



No. 1848.

all pressure on the bulb should then in this case cease until the point begins to glow again with a slight red heat. Then the bulb should be pressed very cautiously and gently until the burner is as hot as required, when it can be taken out of the alcohol flame, and by pressure on the bulb, will retain its heat as long as required. If the heat should get too low on the burner, hold it in the flame again, pressing the bulb as before until it shows the

heat required before taking away from the flame.

Should it happen that the point cannot be heated, resort should be taken to the blow-pipe of the lamp, by holding the point into the horizontal flame a little while (No. 1848), and unless the central tube of the combustion chamber is melted or stopped up with soot, it will light up again in half a minute.

N. B.—The points with a small combustion chamber (such as are pointed), require a more rapid pressure of the blow-apparatus to heat them, while but a slight pressure is sufficient to heat the larger ones, unless, of course, a very high temperature is required.

Important Notice.—The artist should avoid heating it to a white heat. This high temperature, if kept up during some time, may melt the inside tube of the combustion chamber.

The point under no circumstances should be plunged into water to extinguish it; it should be left to cool off in the open air.

After using, clean the point, inside and outside. To clean the inside, heat the point to a vivid red before allowing it to be extinguished, and while it is in an incandescent state, separate the handle suddenly from the rubber tubing which connects it with the reservoir. To clean the outside, wait until the point has become cold, and then rub it gently with a damp piece of linen.

II. To Clean the Point.—If the gas is pumped into the burner before it is hot enough to light, the meshes of the gauze-platinum wire inside will become stopped up with soot, and the burner will not light again until it is heated on the outside to a yellow or nearly white heat with a jeweler's blow-pipe. Then the bulb must be pressed slowly at first, and if it should not maintain the heat, repeat the operation with the blow-pipe two or three times, or until it burns, as it is necessary to burn all the soot out completely before it will light again; this is best done by disconnecting the tubing quickly from the handle while the burner is very hot. If this is repeated several times, a dirty burner can be made as good as a new one. Great care should be exercised not to continue to press the bulb if the point will not light, as that will only make matters worse; recourse must first be had to the blow-pipe. After using a burner it should always be disconnected while red hot, so as to keep it clean. Always allow the burner to cool off slowly after disconnecting. If a white heat is required, the operator should avoid retaining it longer than absolutely necessary, as considerable risk is run of melting the gauze wire mechanism in the combustion chamber; should this become melted or disarranged, it will be necessary to return to the factory for repairs. Never allow the point while hot to come in contact with any other metallic substance, or it will fuse the platinum.

PYROGRAPHY—Continued.

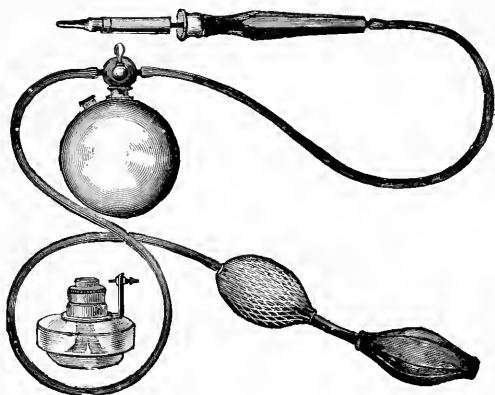
DR. PAQUELIN'S AMATEUR PYROGRAPHY OUTFIT—Continued.

III. The Benzole Used must be fresh and between 65° and 70° Beaume—not above or below these figures.

IV. The Supply of Benzole.—In a glass reservoir; should never be quite half full, nor never have less than three-eighths of an inch in it. When a new supply of benzole is required, throw the old that may be left in the reservoir out, and put a whole fresh supply in. Never add more to the old in the reservoir. Only one-eighth of the benzole freshly put in the reservoir is available for this use; after that much has been used all the good is gone, for the balance will form a heavy, oily gas, which will soon leave the soot of the oil in the fine meshes of the combustion chamber, filling them up and causing the point to cease to burn. This is true also of benzole exposed to the air for some time; all the volatile gases will pass off and leave only benzole unfit for use. It is then of the utmost importance to use only fresh benzole, and never use more than one-eighth of the supply in reservoir; throw remainder out and put in fresh.

In a metal reservoir pour in enough to saturate the sponge, and any surplus which the sponge does not hold pour out again. This must be observed carefully or the benzole will be pumped into the combustion chamber instead of the gas, and fill it with soot. If the benzole is not employed in the condition indicated, and the care taken to observe the points herein pointed out, the instrument will fail to give proper results, involving at the same time the risk of damaging it, while, if the above directions are carefully complied with, every instrument will work satisfactorily for an indefinite period.

In No. 1833 the reservoir for the hydro-carbon (fuel) is made of nickel-plated metal, according to recent improvements, and lined with a sponge.



No. 1833.

The Method.—The point having been lighted according to the above directions, the lamp being no longer required, may be extinguished. But the student must not forget that the point will only retain its heat so long as the bellows remains inflated—so that the pressure of the left hand must be kept up. This constant working of the bulb with the left hand may at first appear a hindrance to your work, in the same manner that the foot motion in running a sewing machine for the first time renders the guiding of the goods under the needle almost impossible. This apparent difficulty is very soon overcome, and while the beginner may at first feel inclined to engage the services of a helper or “blower,” we strongly urge him to resist the temptation, for having once overcome the first slight awkwardness, he will be surprised to find with what perfect accord two hands guided by the same brain will work together. For the first attempt select a piece of soft, white wood, free from knots; your initial strokes will probably show a dot, both at the beginning and the end of each, which results from your resting the point on the wood in each instance. It will require a little practice to overcome this fault, and your effort must be to make an even, delicate stroke. We will not attempt to direct the student “how to hold” the point, as any way in which you can get the best results is the right way for you, and would probably be all wrong for the next person. There is little we can add in the way of instructions; any knowledge you may possess in the other branches of art, lead-pencil drawing, crayon drawing or painting, will be of great assistance to you in mastering the use of your point. The depth of tone is not secured by increased pressure on the point, but by a slow stroke, or passing over the surface a second or a third time. *Your strokes should always be tight.* If this caution is respected, your point

PYROGRAPHY—Continued.

DR. PAQUELIN'S AMATEUR PYROGRAPHY OUTFIT—Continued.

will serve you for years, while it is *possible* for you to rub a hole in it within the hour. We might say there is absolutely nothing that you cannot attempt to portray with your point, and add that there is little that has not already been attempted and successfully carried out in the way of burnt wood painting; designs, flowers, figures, landscapes, portraits, etc., etc. have been repeatedly executed and in a manner that entitles them to the first rank as works of art.

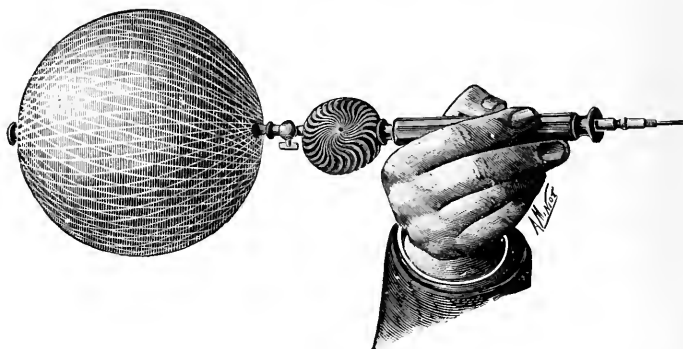
Correcting Errors.—If they occur in the early stages of the work, it is far better to have the wood replanned than to attempt to correct them otherwise. The majority of errors in advanced work can be rectified by using fine sand or emory paper, or by scraping with the edge of broken glass. Never use a knife, as it is almost sure to splinter the wood.

Polishing.—Many subjects are improved by the surface being polished. Any cabinet maker will do this for you at a slight cost, or a good-natured one will show you how to do it yourself, and a few moments' instruction by an expert is of more value than all we could possibly write on the subject.

To Clean the Work.—This is best done by rubbing with bread crumbs.

Woods.—We were about to say you could use any wood; but we might add that it should be free from knots and of even grain. The soft white woods are best adapted for the beginner's use. Poplar is probably the best of all.

THE FRENCH "COMPACT" OUTFIT.



No. 1847.

1847 Complete, with bulb reservoir handle and one platinum point.....\$7 50

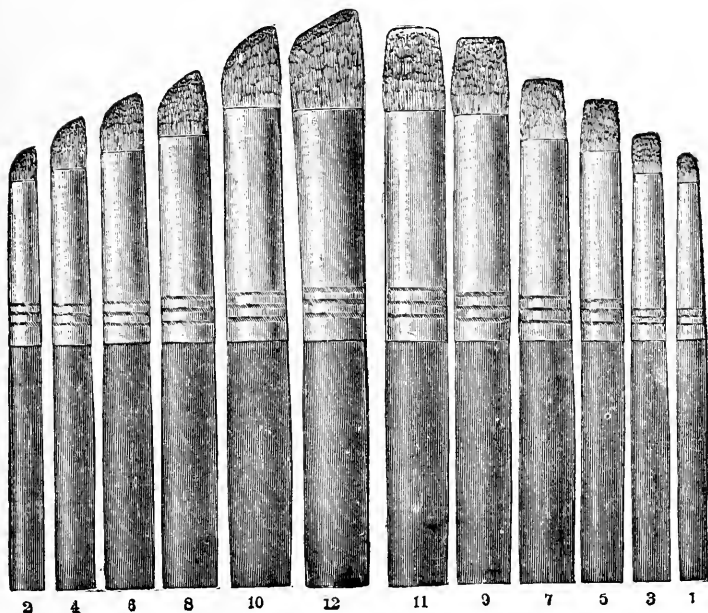
SUNDRY ARTICLES FOR PYROGRAPHY.

Varnish.....	See Index.	Books on Pyrography.....	See Index.
Pencils.....	"	Rubbers.....	"

TAPESTRY PAINTING.

THE GENUINE FRENCH TAPESTRY BRUSHES.

Flat.



No. 1849.

Chiseled Edge, Slanting.

	Each.
1849 No. 1	\$0 10
No. 2	10
No. 3	10
No. 4	15
No. 5	15
No. 6	20
No. 7	20
No. 8	25
No. 9	25
No. 10	30
No. 11	30
No. 12	35

Extra Wide.

	Each.
$\frac{3}{4}$ -inch	\$0 40
$\frac{7}{8}$ "	45
"	50

Chiseled Edge, Square.

	Each.
1849a No. 1	\$0 10
No. 2	10
No. 3	10
No. 4	15
No. 5	15
No. 6	20
No. 7	20
No. 8	25
No. 9	25
No. 10	30
No. 11	30
No. 12	35

Extra Wide.

	Each.
$\frac{3}{4}$ -inch	\$0 40
$\frac{7}{8}$ "	45
1 "	50

TAPESTRY PAINTING—Continued.

BRISTLE ARTISTS' BRUSHES FOR TAPESTRY PAINTING.

Flat, Tapered Point.

	Each.		Each.
1850 No. 1	\$0 10	No. 7	\$0 20
No. 2	10	No. 8	25
No. 3	10	No. 9	25
No. 4	15	No. 10	30
No. 5	15	No. 11	30
No. 6	20	No. 12	35
Assorted, 1 to 12		Per gross, 18 00	

EXTRA LARGE BACKGROUND BRUSH.

1851 Each	\$0 45
------------------------	--------

GENUINE FRENCH TAPESTRY COLORS.

In Glass Bottles. Extra Fine.



*Chrome Yellow, Light
 Golden Yellow
 *Cadmium Yellow
 Yellow Ochre
 Italian Earth
 Raw Sienna
 *Burnt Sienna
 Burnt Umber
 Raw Umber
 Cassel Earth
 Red Brown
 *Vandyke Brown

Saturn Red
 *Vermilion
 Pink Madder
 *Rose Madder
 Violet Blue
 Violet Purple
 *Turquoise Blue
 *Cobalt Blue
 Ultramarine Blue
 *Prussian Blue
 *Indigo
 Vegetable Green

Emeraude Green
 Grass Green
 *Olive Green
 Prussian Green
 *Crimson Lake
 Sepia
 Payne's Grey
 *Ivory Black
 Flesh Tint
 Neutral Tint
 *Carmine

	Each.	Per doz.
1852 All colors, except Carmine	\$0 20	\$2 40
Carmine	40	4 80

* The most useful colors in the line.

TAPESTRY PAINTING—Continued.

SUPERIOR PREPARED TAPESTRY CANVAS.

For Painting Imitations of Ancient and Modern Tapestries, Wall Decorations, Hangings, Window and Theater Curtains, Upholstery, Panels, Etc.

										By yard
1853	No. 12.	82 inches wide,	Coarse Grain	.....						\$3 00
1854	No. 13.	82	"	Cotton Reps, fine ribbed	.....					4 00
1855	No. 14.	120	"	Cotton " coarse	.....					7 00
1856	No. 15B.	56	"	Gobelins, fine stitch	.....					2 00
1857	No. 16.	120	"	Gobelins, coarse	.....					7 00
1858	No. 18.	120	"	Gobelins, grey tint, coarse stitch	.....					6 00
1859	No. 19.	82	"	Cotton Reps, fine ribbed	.....					4 75
1860	No. 20.	82	"	Gobelins, " extra fine	.....					6 00
1861	No. 21.	120	"	Gobelins, coarse stitch	.....					6 00
1862	No. 21B.	56	"	Gobelins, extra coarse stitch	.....					2 00
1863	No. 120.	36	"	Gobelins, fine ribbed	.....					1 25
1864	No. 250.	82	"	Woolen, Gobelins, fine ribbed	.....					6 50
1865	No. 260.	55	"	Woolen, " "	.....					4 00
1866	No. 270.	37	"	Woolen, " "	.....					3 00
1867	No. 280.	Roman—	inches wide	.....	29	32	38	44	47	56
				By yard	\$0 60	\$0 65	\$0 70	\$0 85	\$1 00	\$1 10
1868	No. 51.	Cotton Dnck,	40 inches wide	.....						30
1869	No. 52.	Cotton	" 40	"						45

Nos. 250, 260 and 270 are especially prepared for using the Liquid Indelible Dyes, and are the only numbers to be used when the painting is to be steamed.

All other numbers can be used when the painting is not to be steamed.

No. 12 is for ancient square stitch tapestry, as the famous Bayeux.

Nos. 15, 16, 19, 20, 21, 120, 250, 260 and 270, called Points Gobelins, as well as Nos. 13 and 14, fine and coarse ribbed Reps, suit all other kinds of tapestry, from the tapestries of Flanders, Saumur, Fontainebleau, to Gobelins, Beauvais and Aubusson.

For the Flanders tapestries of 2 yards and upwards, Nos. 14 and 21 are used; of 1½ to 2 yards, No. 16; under 1½ yards, Nos. 13 and 15B.

For the tapestries of Beauvais, Gobelins and Aubusson (haute lisse and basse lisse) of 2 yards and upwards, No. 16 is used; of 1 and 2 yards, Nos. 13 and 15B; under 1 yard, Nos. 19 and 20.

1870 Practical Lessons in Tapestry Painting, illustrated in colors. By Julien Godon
..... Each, \$3 00

1871 Powdered Charcoal..... Per box, 30

1872 Tapestry Medium..... Per bottle, 40

INSTRUCTIONS IN THE ART OF TAPESTRY PAINTING WITH FRENCH TAPESTRY COLORS.

Introduction.—Those who appreciate high art will admire this entirely novel and very elaborate style of artistic decorative work, which has been recently brought to perfection, and which in time promises to become as popular in America as it is at the present time in Europe, where of late grand exhibitions have been given of decorated tapestries so exquisitely painted as to call forth the general admiration of the art-loving world.

The pictures have all the appearance of genuine Gobelin Tapestry, and can be produced very inexpensively. The process is rapid and simple, and greatly resembles water color painting, with the important difference that a work of art thus produced is absolutely indelible, and can, if required, be scrubbed with soap and water without the colors undergoing any change either in tone or brilliancy. It has an advantage over oil painting as a mural decoration, for the reason that it is not necessary to manœuvre into the proper light to see it to advantage. In tapestry painting the scope for original decorative treatment and original designs is unlimited.

These tapestry paintings, imitations of ancient and modern Gobelins, are very suitable for all kind of wall decorations, portieres, window curtains, upholstery, screens and panels. Also used largely for theater curtains, church hangings, banners for lodges and societies, etc., having the great advantage of being easily cleaned when soiled with dust, grease or fly specks.

TAPESTRY PAINTING—Continued.

INSTRUCTIONS IN THE ART OF TAPESTRY PAINTING—Continued.

The Sketch must be made with great care, as it is almost impossible to erase the lines without injury to the surface of the canvas. For enlarging your design, see article on crayon work (page 165), or if you have a Photo-Optican, or can borrow one, it is the best possible means you can employ in making your sketch (see page 55). It is well for beginners to make their original sketch on paper and transfer it to canvas. This is done by pricking all the lines on the paper drawing with a needle. Then fasten the paper sketch over the canvas; go over the whole with a bag of powdered charcoal. The bag should be made of coarse muslin or cheese-cloth, so that the charcoal will sift through the holes. When the paper sketch is removed blow off the surplus charcoal and strengthen the outlines with a medium or soft crayon pencil.

Mounting the Canvas.—This is done in the manner described for mounting oil canvas (see page 20). In this case, however, you must exercise great care that the ribs of the canvas run straight with the stretcher, and too much force must not be used in stretching.

Steaming.—Lay a thick wet cloth on an ironing board or table; over this lay your tapestry, face up, and cover it with a thin, dry cloth and iron the whole carefully.

The Method.—Tapestry dyes are soluble in water, and it is not necessary to thin or mix them with any other medium, unless it is your intention to steam the work when completed. In the following instructions the student will understand that water is to be substituted for "Tapestry Medium" if the work is not to be steamed.

Caution.—It is a very simple matter to strengthen or deepen a color that is too light by second and third washes, and it is very difficult to lighten a color that is too strong or dark; therefore the student must use great care not to use his color too strong. It is well to have a piece of waste canvas at hand upon which to test your colors and washes.

Backgrounds, Skies, Etc.—All colors require diluting, except for the strongest touches. The colors are all transparent, and are used in that form, except for high lights in work that is not to be washed or steamed, or for that style of decoration known as "Gouache Painting." In gouache work the colors are water colors mixed with Chinese White. (Schoenfeld's in tubes or bottles is best adapted for the purpose. See page 129.) This renders them opaque, and they are handled in much the same manner as ordinary oil colors, except that they cannot be worked over with the freedom one is allowed in oil work. But this is a digression, as in this article we have to treat of tapestry colors used with a thinning vehicle only. Add medium (or water) to the color in sufficient quantity to dilute it to the desired tint or tone, and prepare in another vessel a wash of medium (or water) only. If you intend to work in a sky or background composed of several tints, as, for instance, a delicate blue sky at zenith, blending into a warm pink glow toward the horizon, you must prepare a wash of Blue and medium (or water), a second of Pink and medium (or water), and a third of medium (or water) only. Commence at the top with a full brush of your Blue wash; use a large background brush for the purpose. Wet the canvas thoroughly and proceed rapidly, in order that no part will dry before the whole wash is properly laid. As you work down, add medium or water, and when you have covered, say, one-third of the sky use a little less Blue and add a touch of your Pink wash. From this point decrease the proportion of Blue and increase the amount of Pink used until, say, two-thirds of the space is covered. Now work with the Pink and medium (or water), and at the bottom your brush should be filled with Pink only. Keep well within the outlines of your sketch, so that intervening objects can be worked up on the untouched canvas, as in some instances the colors being transparent, one color laid over another would produce disastrous results. Take, for example, Yellow and Blue—the combination would make a Green, more or less vivid. Remember, the canvas must be kept thoroughly soaked with washes, or it will be impossible to lay your tints evenly.

Distant Handling.—Objects at a distance should be treated with great freedom. It is well to let their outlines be as vague as possible.

Middle Distance.—Almost all tapestry painting is strictly decorative, and accessories, more particularly in figure work, should be pronouncedly subordinated to the main figure, feature or idea of the painting; therefore the middle distances, and even the foreground, should be subdued and without especial emphasis or intruding detail.

TAPESTRY PAINTING—Continued.

INSTRUCTIONS IN THE ART OF TAPESTRY PAINTING—Continued.

Brush Work.—In working up detail select a brush as large as the work in hand will permit; let the strokes be short and well into the mesh of the canvas; lay your deepest shades first always, working up into the lighter tones and adding medium or water as you proceed. As far as possible complete your work as you progress; use an ordinary china palette, and keep your colors pure and unmixed to as great a degree as you can. Work one color well up to another and blend with medium or water.

Suggestions.—It is well to try all your colors on a piece of waste canvas or even coarse cotton before you attempt using them. To do this lay each color full strength and then blend out with medium (or water) until it disappears. This color chart will always be valuable for reference. Select subjects that are not conventional, and those only that are delicate in coloring. Avoid sharp, hard lines, strong contrasts or vivid coloring. Work up the principal figures or objects; keep the balance of the picture subdued. Tapestry colors are also suitable for working on bolting cloth, moleskin, silk, satin, etc.

NOTE.—Acme colors (see page 126) can also be used for tapestry painting. The colors are diluted in water and used in the manner just described.

“Velvet Oil Method”—“Perpetua Fresco.”

(USING ORDINARY OIL COLORS.)

NOTE.—The following article was written by M. F. O'Connell, the inventor of the described method and manufacturer of the materials used. These specialties have been so extensively advertised in the leading art journals of this country and Europe, and M. F. O'Connell is so well known, that we feel that any comment on our part is uncalled for. We will simply add that the endorsement of the Photo-Opticon was an agreeable surprise to us, as it was entirely voluntary. Our request was simply for an article describing the method. We are authorized to state that any further information may be gratuitously had by addressing M. F. O'Connell, our care, or Leon, Butler county, Kansas.

INTRODUCTION.

Velvet Oil Method.—“Perpetua Fresco” is no medium, but a reliable method introduced for painting in *unglazed oils* on satin, silk, tapestry, wood, leather, etc., also for mural decorations. It consists of a foundation (to be placed over the sketch), which does not spread or cockle the material, as it dries immediately, and a Special White, which as a surface gives the work a soft, velvety appearance, unequaled by any other method. The painting is done in ordinary oil paints. Figures, flowers, landscapes, pictures, banners, fans, etc., can be both easily and quickly done by this process. Water colors can also be used on the same foundations, but oils are far easier to manipulate and are quite as cleanly if only ordinary care be taken and a china palette used. They require no mediums, turpentine being sufficient to thin with. The full instructions are given on the bottles, 25 cents each. In use in nearly all decorative art studios in London and Paris. Advertised in the “Art Amateur,” “The Art Interchange,” “The Art Student,” and Inghall’s “Home and Art Magazine.” None genuine without the signature of the inventor and maker, M. F. O'Connell.

DIRECTIONS.

How to Paint on Tapestry by “The Velvet Oil Method”—“Perpetua Fresco.”—By this method an almost exact imitation of the woven lines of the loom is secured, freed from all stiffness, rendering the canvas quite pliable. The material should be strained on a frame, and if the picture is to occupy the entire surface, damp with turpentine, and while wet apply the “Perpetua Fresco.” If, however, but a portion of the texture is to be decorated, the preparation should go only over the design, without damping. The work is done in ordinary oil paints and turpentine or gasoline, the lightest shades going on first, and next day the other colors and finishing touches. No harsh outlines should remain, as all the effects of canvas painting are obtainable with far less trouble.

TAPESTRY PAINTING—Continued.

DIRECTIONS FOR THE "VELVET OIL METHOD"—Continued.

This preparation is equally suited to all textiles, but principally to tapestry, where it stops up the pores without injury to the material, and thus secures a richness of color and softness of effect almost impossible to detect from woven tapestry. As a means of enlarging a picture for textile painting, Aloe's Photo-Optican stands unequalled. It should be placed in a southern window (if possible) and the photo, or print, to be copied fastened, by means of thumb-tacks, to shelf D; the tapestry to be placed opposite, in an upright position, on easel. To produce a perfect enlargement, take a bottle of Aloe's Brown Optican Ink, and with it go over all the outlines, then dilute a little in water, and shade every portion, including the face, hands, etc., according to copy. This will render the picture like a large photograph, and very easy to paint. The ink can be used also on the prepared surface.

M. F. O'CONNELL.

1873	"Perpetua Fresco," 1-ounce bottle.....	\$0 25
1874	"Perpetua Fresco," 6 ".....	1 00
1875	Special White.....	20
1876	Optican Ink	15

Ordinary Oil Method.

MATERIALS.

	Per bottle.
1877 Berlin Color Preserving Medium.....	\$0 50
1878 Aloe's Tapestry Medium.....	50

With either of these mediums painting with oil colors can be done on silk, linen or cotton cloth, rendering the fabric soft and pliable, and yet indelible and unfading when laundered. Useful in decorating dresses, bed spreads and shams, curtains, draperies, table linen, doylies, etc.

The method of using Tapestry Medium with oil colors for decorative purposes is so simple that but a few words of explanation are necessary. The manner of mounting the canvas and securing the sketch, outline, etc., is the same as described in our article on Tapestry Painting with French Tapestry colors. (See page 191.) It is well to squeeze the color from the tube upon white blotting paper before mixing with the medium. When the surplus oil in the color has been absorbed by the blotter, remove with a palette knife to your palette and mix thoroughly with medium. The colors should be reduced to a liquid or semi-liquid form by adding sufficient medium to them. It is well to mix your color for washes, background work or large surfaces in china tinting saucers. The brush work is the same as for handling French Tapestry colors. The color is worked into the mesh of the canvas, instead of being left on the surface, as in ordinary oil painting on canvas. The finished work is improved by "steaming." (See page 192.) In short, there is really no distinctive difference between handling oil colors thinned with Tapestry Medium and French Liquid Tapestry colors. The great advantage the former has over the latter is the unlimited number of colors one has at his command and the use of the tables found on pages 60 to 77 as a guide for the treatment of different subjects.



Scenic Painting.

NOTE.—As educational institutions and others have applied to us from time to time for materials with which they could paint scenery and drop curtains for theatrical entertainments and commencement exercises, and have also asked for directions covering the use of the materials, we take it that a brief article on the subject will not be amiss—more especially as the method is quite simple, and the materials cost but a nominal sum.

MATERIALS.

COLORS.		Amount required for ordinary set of scenes and curtain.	Per pound.
1879	Aloe's Special Whiting	15 pounds.	\$0 05
1880	Aloe's English Drop Black	2 "	10
1881	Aloe's Ultramarine Blue H. M.	2 "	25
1882	Aloe's Orange Mineral	2 "	20
1883	Aloe's Chrome Yellow, Medium	3 "	25
1884	Aloe's Burnt Turkey Red	2 "	15
1885	Aloe's No. 3 Ground Glue	2 "	45
BRUSHES.			
1886	Aloe's Background Brush, 4 inches	2 "	50
1887	Aloe's Bristle Lining Brush No. 6	2 "	25
1888	Aloe's Fitch Detail Brush " 10	2 "	15
1889	Aloe's " " " " 12	2 "	20
1890	Aloe's " " " " 14	2 "	25

1891 ALOE'S OBERLIN SCENERY CLOTH.

Not expensive.

Estimates furnished on application.

INSTRUCTIONS.

The muslin should be mounted or stretched, so as to be perfectly taught. The White should be dissolved in water, well stirred, to about the consistency of cream or ordinary paint. The glue must be dissolved over night in water, then heated, as one would prepare ordinary glue for general purposes. Add, say, one-quarter glue to three-quarters White. This forms your sizing or priming coat. It should be applied to the canvas freely, with the background brush. In mixing the other colors, proceed in the same manner, adding Lamp Black to darken and Whiting to lighten the color.

The materials above listed are all that you really require. The colors, while few in number, can be freely mixed and combined, and will produce a vast number of colors and shades. With your Blue, Red and Yellows you can make all the Greens you require, etc., etc. Mix your colors in tin cups, tomato cans, or anything you happen to have at hand. The Photo-Optican (see page 55) is valuable in assisting you to sketch the design for your drop curtain and such scenes that are difficult to draw.

Kensington Painting.

It has been our aim in this work to give the necessary information without comment or elaboration. Whether the subject treated of is, in our opinion, entitled to this or that position as regards its distinctive merit is, we take it, a matter of little interest to the reader. Kensington painting derives its name from the close resemblance it has to the Kensington embroidery.

KENSINGTON PAINTING—Continued.

MATERIALS.

1892	Aloe's Opaque Medium	Per bottle, \$0	25
1893	Aloe's Kensington Brush No. 4	Each,	15
1894	Aloe's " " No. 6	"	20
1895	Aloe's " " No. 8	"	25
1896	Kensington Brass Pens, large or small	"	01
	Kensington Steel-pointed Pens	"	10

INSTRUCTIONS.

Kensington work is done on velvet, plush, silk, satin and other kindred fabrics. The material upon which you intend to paint should be mounted as canvas (see page 20) or tacked to a drawing board or table—see that it is smooth and free from wrinkles. Sketch in your design in the manner described for securing the outline in tapestry work (see page 192), substituting powdered chalk for charcoal when working on black or dark material. Another and equally as good method is to paint over your perforated pattern with water color Chinese White. Use ordinary oil colors for the work. A list of the tubes necessary for certain fruits, flowers, etc., will be found on pages 60 to 77.

Those portions of your design that are to be laid in dark colors require no preparation, but all parts that are to be worked up in delicate tints must first receive a body coat of white paint, laid on flat. This is to prevent the color of the material itself showing through the more delicate touches of the work. Use care to keep well within the outline of your design and allow the white to dry before proceeding further.

The colors are mixed on an ordinary palette with a steel palette knife. In Kensington painting, pens are substituted for brushes in applying the paint. Mix your colors with Kensington Medium to prevent them from sinking into the material, cracking, and to insure their drying quickly. Simple subjects should be selected for first attempts—a blossom, a few leaves, or, what is still better, an example of Kensington embroidery. In working, confine yourself to a certain part of the design and finish the leaf or flower commenced before touching other portions of the design, as the color must not be permitted to dry until all the shading and detail is completed.

The shading and coloring should be more pronounced than in ordinary oil painting, to prevent the work from having a flat appearance. Dip your pen into the color as one takes ink from an inkstand, using care to keep the paint well down on the point. Let your strokes be in close imitation of the Kensington embroidery stitch. With a little practice the beginner will be surprised to find how perfectly this work can be reproduced. The resemblance is such that the eye cannot detect the difference except by close inspection. Allow the work to dry thoroughly before removing from the board or stretcher. When painting on thin material—silk, satin, etc.—it is well to cover the back of the fabric with powdered magnesia, to prevent the color from running.

Painting on Silk, Satin and Kindred Fabrics.

WITH WATER COLORS.

In painting on silk or satin with water colors, the material requires no preparation before receiving the colors, and the only suggestion we feel called upon to make is that all delicate colors should be mixed with a sufficient quantity of Chinese White to give them *body*; in fact, Chinese White should be added to even the darker shades wherever it can be done without impairing the quality of the color itself. The objects of this is to render them opaque. Colors mixed with Chinese White, as above described, are properly termed gouache colors, and the method of applying and handling them is not dissimilar to that employed in ordinary oil painting, except that the same amount of freedom cannot be exercised in working over color. Retouching and working over color should be done with a half dry brush, so as not to disturb the paint already laid.

WITH OIL COLORS.

The main obstacle than we encounter here is the inclination of the colors to creep, run, crawl, soak through the material, and in fact do everything that tends to exasperate the artist in his efforts to manipulate them. They are, however, readily brought into a state of docility by the use of "Satin Liquid" (see page 36). The directions for its employment are quite simple and can be briefly stated.

PAINTING ON SILK AND KINDRED FABRICS—Continued.

INSTRUCTIONS.

Ordinary oil colors are used for this branch of decoration. In the majority of instances the material painted on requires no preparation whatever; but there are some fabrics, notably grosgrain silks and satins, that have a faculty of sucking the color through the cords over which they are loomed that renders a thin coat of sizing necessary before the paint is applied. Soehnee's French Fixatif is the medium best adapted for this purpose, but a weak solution of gum arabic may be substituted, and answers fairly well.

The oil color is squeezed from the tube upon white blotting paper and allowed to remain for a few moments until the surplus oil in the color is absorbed by the blotter. It is then removed with a palette knife to a palette or slab, and sufficient "Satin Liquid" is added to restore the proper consistency.

The colors required to paint certain flowers, etc., will be found listed on pages 60 to 77, and the methods employed are the same as described for ordinary oil painting (see pages 56 to 60).

1897 Aloe's Satin Liquid.....Per bottle, \$0 30 Per doz., \$3 00

Painting on Plush and Velvet.

Instructions given for painting on silk and satin are applicable to plush painting as well.

Painting on Wood.

WITH OIL COLORS.

If the wood has a polished or varnished surface, no preparation is necessary, and it is treated in the same manner as described for painting on canvas (see pages 60 to 77). If, however, the wood presents its natural surface, the paint will sink into the pores, and the work be flat and unsightly. Several methods can be employed in preparing the surface, and in the adoption of one or the other the artist must be guided by the circumstances in each case. When the wood itself is to serve as a background, and it is thought that in its natural state the best effect will be produced for the subject in hand, the sketch will have to be first drawn and all parts to be covered by the design carefully gone over with white shellac (see page 36). When the shellac is dry, the surface covered by it may be safely painted on. Unfinished wood is best cleaned with bread crumbs.

When the wood is to serve as a background, and a half finish is considered appropriate for the contemplated painting, the whole may be oiled with either Linseed or Poppy Oil; in which case, while it is safest to block out the design, as directed for painting on unfinished wood, it is customary to work over the oil finish without further preparation.

The last instance that we will note is where the artist intends to paint in his background, using the wood simply as a substitute for canvas. In this case the entire surface is first gone over with shellac, or any wood filler may be substituted.

WITH WATER COLORS.

All woods that present a close, even fiber can be decorated in water colors. While the style usually adopted is gouache painting (see page 147), on the majority of woods transparent washes can be laid with comparative ease, and the effect is at once beautiful and artistic. The wood should be carefully dressed down, but without artificial finish or polish. It is well to add a little gum water to the body color, and the whole when completed can be to a large degree protected from damage through handling by an application of French Water Color Varnish (see page 37). The sketch should be delicately drawn with a medium lead-pencil. Details are often effectively worked up with India ink, an etching pen being used for the purpose.

Repousse Work.

(HAMMERED BRASS DECORATION.)

MATERIALS.

SUPERIOR REPOUSSE TOOLS.

1899	Per set of 8 pieces.....	\$1 50
2000	Separate tools.....	Each, 20
2001	Prick Punches, for making holes in brass for screws.....	" 15

MODELING TOOLS FOR BRASS MODELING.

2002	Complete set.....	Per set, \$3 50
2003	Sheet Brass, per square foot, ordinary thickness.....	40

SUNDRIES.

2004	Polish for Brass Work.....	Per box, \$0 15
2005	Impression Paper.....	Per sheet, 05
2006	Screw-driver.....	25
2007	White-wood Mallet.....	20
2008	Lignum Vitæ Mallet.....	35
2009	Rawhide Mallet, No. 1.....	40
2010	Rawhide " " 2 (larger).....	50
2011	Screws with Washers.....	Per doz., 20
2012	Steel Hammer.....	1 00

Introduction.—The abuse of this art has resulted in its being almost entirely neglected of late years. But when confined to its true province much can be said in its favor, and there are at present strong indications of its revival.

Instructions.—Select a piece of sheet brass a trifle larger than your contemplated design and fasten securely to a piece of soft pine board about an inch thick. To fasten the brass to the board it is best to pass screws through holes made at short intervals in the edge of the sheet and attach a washer to the end of the screw on the opposite side of the board.

Sketching the Design.—As you can select any design capable of being reproduced in bass-relief for this work, a variety of methods may be employed in securing your outline. But where the ordinary designs published for hammered brass work are used, it is best to transfer with impression paper, which is done by placing a sheet of impression or carbon paper between your design and the brass and tracing over the lines with a hard lead-pencil or stylus.

The Method.—With punch No. 1 or 2 we retrace the outlines on the brass. The tool should be held firmly on the line, and the indentation made by giving the head a slight blow with the mallet. The markings should appear as a continuous chain of unbroken dots. In working up the background select a punch according to taste as best suited to the subject in hand. Nos. 5, 6 or 7 are the tools usually employed. Work from the outer edge towards the design or figure, and let your mallet strokes be uniform. As you approach the figure proper, it will rise in relief and begin to assume correct form.

Finishing.—Your early work should be confined to such simple articles as ash trays, pin trays, panels, plaques, shields, etc., and while many prefer to finish their own work, of course the appearance will be greatly improved by having the article completed by a professional brass worker. In fact, on its return from the factory it will be difficult to recognize the crude original you entrusted to his care. Polished to the highest degree, with edges skillfully turned, and a handle added here or a trimming there, it presents an appearance that it would have been impossible for you to approach. The expense of finishing brass work is nominal, and the results certainly justify the slight additional expense incurred. Aluminum and even sterling silver are frequently substituted for brass in this work, but the beginner had best content himself with the cheaper metal, at least until his skill justifies the substitution.

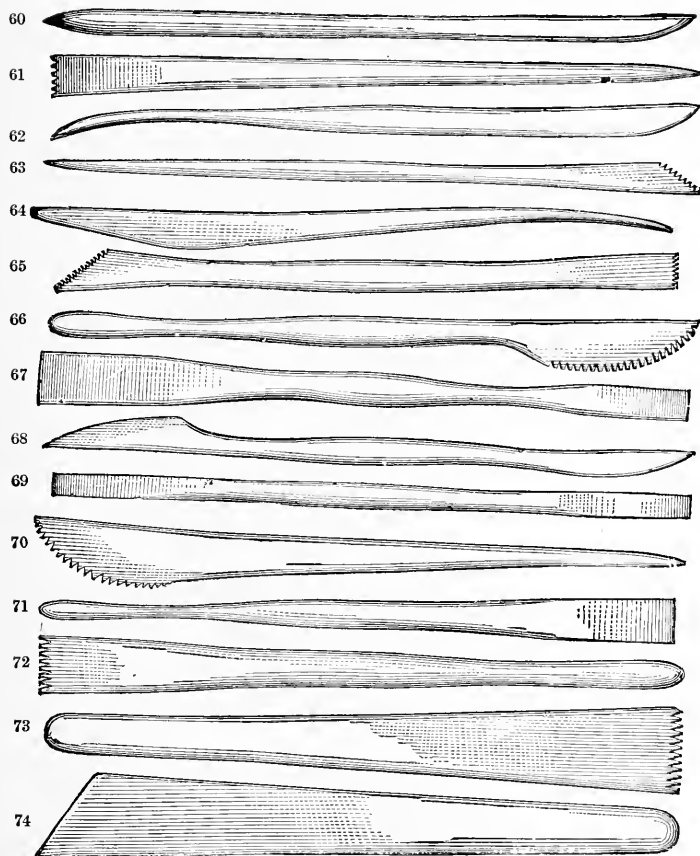
MODELING

In Clay, Wax or Other Materials.

MATERIALS.

BOXWOOD MODELING TOOLS.

For Clay, Wax, Etc.

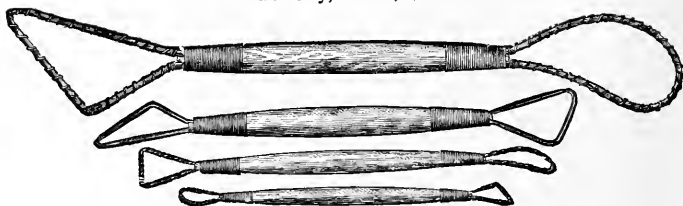


Nos. 13 to 17, Inclusive.

		Each.
2013	Numbers 30 to 50, 4 to 6 inches long.....	\$0 10
2014	Numbers 60 to 80, 8 " ".....	15
2015	Numbers 90 to 110, 10 " ".....	25
2016	Bone Assorted Shapers, 6 inches long.....	30
2017	Steel " " 5 to 7 " ".....	35

MODELING—Continued.**WIRE MODELING TOOL.**

For Clay, Plaster, Etc.



No. 2018.

	Each.		Each.
2018 Size, 6 inches.....	\$0 35	Size, 12 inches.....	\$0 65
Size, 8 "	40	Size, 14 "	80
Size, 10 "	55		

MODELING CLAY.

Finely Prepared.

2019 Five pounds in package.....	Per package, \$0 25
2020 Superior Potting Clay.....	" pound, 10

MODELING WAX.

2021 Various colors.....	Per pound, \$0 90
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ALOE'S SUPERIOR MODELING CLAY.

A recently discovered composition that we claim is absolutely invaluable to the sculptor or designer in bass-relief, as it never hardens, being always at the proper working consistency, thus enabling the artist to take up or drop his work at any time, and obviating the necessity of wet cloths or employing other means of keeping his unfinished work in proper condition.

2022 Price, per pound.....	\$0 50
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MODELING STANDS, ETC.

	Each.
2023 A, Modeling Stand, with screw elevation, revolving platform, height, 50 inches	\$9 50
2024 B, Modeling Stand, with revolving platform, height, 50 inches	6 50
2025 Sculptor's Easel for supporting modeling board, 66 inches high.....	4 50
2026 Sculptor's Modeling Stand, wrought iron, can be raised or lowered from 3 feet to 6 feet.....	7 50
2027 Modeling Stand for work in relief. Height, 12 inches; base, 11x14; top, 14x13.....	3 00
2028 Modeling Board, 13x15.....	2 75

INSTRUCTIONS IN THE ART OF MODELING IN CLAY, WAX AND OTHER MATERIALS.

This is a branch of art in which we would like to interest every art student. For, while a sculptor is supposed to have mastered the rudiments of all art—namely, drawing—it may be truthfully said that nothing tends to educate the young artist and broaden his conception and understanding of form as modeling.

The young artist having furnished himself with clay and necessary implements (described later on), should begin with a foot or a hand, or, if he feels sufficient confidence, a simple torso, as presenting graceful curves, and, though taxing his ability, being at the same time free from minute detail.

The materials required by the modeler are few and simple: a lump of clay and a few wooden tools are the very humble means by which beauty may be created.

MODELING—Continued.

INSTRUCTIONS IN THE ART OF MODELING—Continued.

Ordinary pipe-clay is objectionable, as it is soapy in handling; and raw clay as obtained from the earth is too dense. A suitable clay is prepared by washing, sifting, grinding, and mixing with a proportion of fine sand, which corrects the sliminess of the common clay, and gives grip. The clay used for white stoneware is serviceable. As it should be perfectly ductile when used, it is well to keep it in earthen vessels, or a slate tank, to preserve its moisture. It is an obstinate material if allowed to harden, and cannot be made soft in a hurry, as water penetrates its particles very slowly.

The next requisite will be modeling tools. These are inexpensive, and a few only are absolutely needed. In the illustrations are shown the most useful patterns, heavy serrated tools for roughing in, wire ones for cutting sharp channels in drapery or hair, and smooth tools for a more advanced stage of the model. But the most useful of all tools is that supplied by nature—the finger. Indeed, the best modeling tools take the shape of the finger point; and an imprint from the thumb will often give an effect which no artificial tool could produce. In the earlier stage of a model the finger and thumb will best give the general form desired; and the tool will only be needed in detailing the work later on.

Though the patterns here given are recommended, no particular tool is insisted on. A great deal rests with the artist, who from habit or fancy naturally prefers certain implements, which in other hands would be found inconvenient.

Another requisite is the modeling stand. If the student intends to improvise one, we suggest that the work is on a level with the eye, and that the platform or top turns on a pivot, bringing any part of the work before him at will. A modeling board or frame is also necessary, but as the form of this depends entirely upon the work in hand, and can be constructed by any carpenter for a nominal sum, we do not list them in connection with this article. If a bust is the subject, a wooden upright with a cross to pass into the shoulders is the correct thing, but the beam should not rise above the neck, for if it goes into the head, it renders it immovable, and the artist will in vain try to turn it, or flex the neck, to obtain the pose he desires. A stout stick driven into the solid body will be found to answer; or a length of leaden pipe may be fastened to the upright, and form the support for the head; the advantage of the latter expedient being that it can be easily bent.

If a figure be the object, the support must go into the body, but be kept clear of the limbs, otherwise action will be impeded, and stiffness will be the inevitable result. The legs can be supported with a length of leaden pipe or a chain, hanging from the main iron. An extended arm may be supported in a similar way, by a piece of pipe driven into the body.

"Finish" in particular parts of a model in advance of the rest of the work should be avoided. Pass and re-pass over the work generally again and again, doing "here a little, and there a little," and it will grow and develop uniformly and correctly. It is well to look at your work in a mirror from time to time, and measurements should be taken as soon as a certain part is in form. Having discovered by eye, measurement or mirror, that your model is faulty, courageously efface the defect, careful "finish" notwithstanding. There is no compromising an error in form. Destroy and renew, till you have achieved truth.

As a statue, unlike a picture, has to be viewed from all points, the sculptor must constantly turn it, study it in various lights and shades, and compare every aspect with the original. Whether the object selected for study be a statue, a head or a toe, the same advice applies. Copy; copy; copy. It may seem tedious and uninteresting to the student ambitious of advancing by "leaps and bounds;" but at a later day, when the leaps and the bounds in his career occur, he will be grateful for the iteration of this advice.

In modeling a figure, it is well to envelop the revolving disc on the top of the iron in a good stiff lump of clay, as the model will sink or settle more or less from sheer weight, and if the core be hard, it will be less. Be careful always to allow plenty of base or ground, as it frequently happens that you have to extend downwards, owing partly to the settlement of the clay, and partly to miscalculation as to length of limbs.

In the early condition of the model the forms are undetermined, consequently the clay should be kept soft and ductile by frequent sprays of water, and when not being worked upon should be covered with wet cloths or oilskin. As the work progresses, it should be allowed to harden and consolidate (but not to dry), as in this condition the more subtle touches are put in. If allowed to dry entirely, the model may be considered as ruined, as the shrinkage of the clay round the supports involves fissures and fractures which cannot be repaired. Should the model

MODELING—Continued.

INSTRUCTIONS IN THE ART OF MODELING—Continued.

be free of supports, this catastrophe will not occur: it will shrink uniformly. But the dry clay will be found to be very friable, and can only be rendered safe by firing, *i. e.*, being converted into terra cotta, a process described further on.

A material sometimes employed for modeling consists of plaster, tow and glue. Its only recommendation is that casting is obviated, as it dries and hardens without shrinking. It is also light, and can be worked upon with chisel or rasp.

Upon a foundation of loose, dry tow, you lay a sheet of tow soaked in plaster and glue-water mixed rather thin, and as the inner substance is soft and compressible, the rough form can be easily obtained while the composition remains plastic. When this is set, model with fine chopped tow and plaster and glue, finishing with plaster and glue only. A novice in the art is not advised to adopt this method, as alterations in pose cannot be easily made. The invention is Italian, and it is very rarely adopted by the sculptors of this country.

The sculptor having determined upon his subject, made his sketch, and bent his irons, will do well to build up his figure thinly, representing the bony structure rather than the developed flesh. This having stood the test of measurement, he should lay on the muscles piece by piece, preferring to add rather than to scrape or cut away, till the desired form is arrived at.

In the earlier stages of a work, fine effects are often produced by the spontaneous touch of the artist's hand. It is well to indulge in impulsive handling, and to experimentalize, instead of contenting one's self with the first essay, and finishing accordingly. Shift with a bold hand, not too tenderly respecting favorite "bits," and the tyro will be surprised how improvements and unsuspected graces will develop themselves. Therefore it is well to avoid being over enamored of one's composition, and thus cease to search for amelioration. It may be excellent, but it must indeed be masterly if it admits of no improvement.

There are various ways of producing surface. Where the clay is hard, a serrated tool may be employed, and the lines obliterated or reduced with a wet sponge or a piece of coarse stocking over the finger. But the same tool must not be used indiscriminately for both flesh and drapery. Experience will teach the young artist what to employ, and how to employ it. He will understand that texture is to a model what the marks of a brush are to a painting; and that a very smooth surface in plaster is as weak as a very smooth surface in a picture.

Pottery and Pottery Decoration.

FIGURE, FLOWER AND OTHER MODELING FOR FIRING. TERRA COTTA, ETC.

The process of modeling in clay intended to be fired, and thus converted into baked clay, or terra cotta, is the same as that for ordinary purposes, certain precautions being requisite. Terra cotta clay is sometimes simply clay cleansed of all foreign substances, and sometimes mixed with sand or silicate in larger or smaller proportions. This latter addition makes the harder stone-ware, but the unmixed clay produces the more delicate results, and is that usually employed for fine art. The degree of heat applied to the object will render it more or less hard, but excessive firing will vitrify and discolor the surface, therefore it is not to be desired.

In modeling, the artist must dispense with all artificial supports in the interior of the model, for two reasons. In the first place, as the clay dries round the supports, it would crack in shrinking, and be thus irremediably injured; and secondly, if submitted to the intense heat of the furnace, the supports, if iron, would expand and melt; and, if wood, would be immediately consumed, to the certain destruction of the work.

The shrinkage of clay when fired is usually 1 in 12. Consequently, if it is desired to make a work a certain size, this shrinkage must be allowed for.

An essential thing in this branch of art is that the model be made hollow to allow for contraction; otherwise the fire, which has penetrated the thin parts, has only partially penetrated the thicker, the contraction therefore is unequal, and the model flies to pieces. Of course, in making vases, jars, pots, etc., the shape and form of the article itself provides for this.

MODELING—Continued.

POTTERY AND POTTERY DECORATION—Continued.

The ware just described may be decorated in underglaze colors before firing, and here we make a digression from the subject proper, and offer a few suggestions and directions in this special branch of art.

MATERIALS

For Pottery Decoration in Underglazed Colors.

COLORS.

2029 Black, Blue, Buff, Drab, Green, Red, White, Yellow, Brown:

In bottles, per doz	\$2 75
In " each	25

SUNDRIES.

2030 Aloe's Foundation Varnish (for sizing), before applying the color, 2-oz. vial..... 25

Directions.—These colors may be freely mixed, and although few in number, an indefinite variety of shades and colors can be produced by their combination. The white clay can also be mixed with the colors, as white is added to oil colors for producing certain effects. It is well in underglaze painting, as we suggested in Lacroix colors, to make test plates to familiarize yourself with the materials. The ware should receive a coat of foundation varnish before the colors are laid on. The colors for the background are mixed with gum and water, and great care must be exercised in handling, as the color once laid cannot be removed and corrections are difficult. The decoration should be laid on while the clay is wet, and finished at one sitting, if possible—otherwise, the ware should be kept wet. When the background and broad washes have been carefully laid, the detail and after-painting is done with the same colors mixed with gum and clay or oil and turpentine. When the piece is completed it is ready for the kiln—the firer will glaze it.

The suggestion of color test pieces is of greater importance here than in any other branch of art, owing to the fact that the colors are materially changed by firing, and it is necessary for the artist to know just what effect the kiln has on each color.

NOTE.—A selection of brushes for this work may be made from those listed on pages 106 to 112, short painters and square shaders being recommended.

But to return to the subject of modeling. To model a bust or figure hollow is attended with great difficulty. The simpler method is to complete the work solid, in the ordinary way, and then with a wire, making a thin section down the back, or in any part not seen, to scoop out the interior, leaving an uniform depth of clay in all parts, ranging from half an inch to two inches, according to the size of the work. The piece cut off can then be replaced, the edges being first moistened to insure adhesion, and the joint concealed by being worked over. A few holes in unexposed parts should be made to allow the steam to escape; and the model, after having been thoroughly dried, is ready to be submitted to the ordeal of fire. Finally, a nice bloom is obtained by washing over the whole surface with a thin solution of clay.

Objects in terra cotta may be squeezed or cast in a mould, instead of being modeled. A piece-mould having been made on the original work, the clay, in a very plastic condition, is pressed bit by bit into every part to the necessary thickness, which should be as uniform as possible. Some nicety is required in this operation, and the pieces must be thoroughly incorporated with each other; if not, cavities and patches will appear. On removing the mould a modeling tool is passed over the work, taking off the lines which show where the pieces of the mould meet, sharpening the touches and strengthening the effects throughout. By this means a "squeeze" may be made to have all the freshness, and much of the merit, of an original model.

To cast in terra cotta, a smooth solution of the clay of about the consistency of cream is prepared and poured into the mould, which is rendered porous by being made of a common quality of plaster mixed with a liberal amount of water. The mould thus made absorbs the water rapidly, and the solution adhering to the mould sets, leaving a coating of clay on the inner surface. The

MODELING—Continued.

INSTRUCTIONS IN THE ART OF MODELING—Continued.

process is repeated, until a sufficient substance is deposited, when the mould is carefully taken off, and the lines are removed from the cast as described above. The mould being charged with water, it is necessary to dry it; and when this has been done, it is ready for a repetition of the operation.

A terra cotta cast is in every way inferior to a "squeeze," and still more so to an original model. In fact, the process is only resorted to in manufactories where numerous and cheap copies of works are required; and it may be added that, however meritorious the originals may be, they are grievously deteriorated when thus reproduced.

The model, being thoroughly dry, is brittle, and unless indurated is liable to destruction. Fire is the agent to effect this remedy. Potteries undertake the burning of fine art work, and the cost of firing is nominal.

A good deal of terra cotta ware, such as vases, plaques, etc., is produced by being first "thrown" on the potter's wheel, where it receives the general form required, then, after having been dried (not fired), it is turned in the lathe to the shape selected. This is a pretty and tasteful operation, as the clay, being of a very close grain, takes a fine polish; and decorative lines, "runners" of classic device, or threads of color are run round them in the lathe. Designs are also sometimes painted or transferred onto them before they are submitted to the final process of the furnace. Described as underglaze painting on pages 202-203.

CASTING, WASTE-MOULDING, PIECE-MOULDING.

The model being in perishable material—clay—must now be cast in plaster, if not burnt, as described in the preceding chapter. Once translated into that material it can be preserved or multiplied.

This operation, supposing the model to be at all complicated, had better be confided to a professional "moulder." But a simple work, such as a medallion, a mask, or even a bust, may be undertaken by the amateur with fair prospect of success.

The first mould upon the clay is called a "waste-mould," as it is usually broken up in order to extricate the cast which is a fac-simile of the original work.

A "piece-mould" is a mould made in numerous sections so contrived that the several pieces can be removed one after another from the cast without being fractured, and can therefore be put together again and used in the same manner *ad infinitum*. The cast taken from this mould is also a fair fac-simile, with the exception that it is covered with lines or seams, which occur where the pieces meet, and which, therefore, constitute a blemish.

Piece-moulding is a delicate and tedious process, and had better be entrusted to the artisan whose specialty it is. But a waste-mould every sculptor should be able to make, as it frequently happens that he finds himself executing a bust or other work in remote places far removed from the metropolis.

The model should not be too dry. If in that condition, a sprinkling of water thrown on it with a whisk is desirable, as it will prevent the too rapid setting of the plaster.

Good plaster is an essential, and should be obtained from a good maker, and kept in a dry place, as dampness decomposes it and renders it useless. We will suppose a life-size bust has to be dealt with. One of the main considerations in waste-moulding is, how to extract the clay from the interior when it is done. In complicated and large work various expedients are resorted to. In moulding a bust, it will be sufficient to make a section in the back or crown of the head. Beat out a strip of stiff clay, and cutting it to an uniform width of about an inch, attach it edgewise in a circle round the part selected for the section. The object of this wall is to prevent the plaster, which you are about to throw over the bust, reaching the space which is to be occupied by the section or piece.

The first coating of plaster (the method of mixing which is described later on) is usually colored with ochre, red or yellow, to distinguish it both from the future cast, and also from the stouter external crust of the mould now being made, the advantage of which will be presently seen. Having mixed a basin full of colored plaster, throw it with the hand over the whole of the model (excepting the circle protected by the wall of clay), to the depth of about a quarter of an inch.

When this is quite set, take a brush, and, charging it with a solution of clay, pass it over the whole surface.

The object of this is to prevent the next batch of plaster adhering to the first colored one.

MODELING—Continued.

INSTRUCTIONS IN THE ART OF MODELING—Continued.

This done, mix a larger quantity of plaster, without color, and, allowing it to set a little, lay it either with the hand or a spatula over the whole of the previous coat. Repeat this until the mould is thick enough to be safe from injury.

Now remove the rim of clay which was first put in a circle on the back of the head, and having trimmed down the edge of the plaster mould, which has taken the form of the rim, at an obtuse angle, smear the edge with clay water, and fill the disc with plaster. When set, the point of a knife inserted between the mould and the section will enable the operator to lift the piece, and thus leave an aperture for the extraction of the clay, the whole of which can now be easily removed by separating the model from the stand, and thus exposing the great mass of the clay underneath.

The whole having been removed, the mould should be washed with a soft brush to remove the particles which adhere; and this having been done, it should be thoroughly charged with water to prevent the plaster adhering to it, and it is then ready for casting.

Mix a large basin full of plaster, and without allowing it to stand, pour it into the mould, after having replaced the piece in the head, and made it secure with string, and shake the plaster well into every part of the mould returning the surplus plaster to the basin; let it set a little, and then pour it back into the mould as before, and, as it is by this time less liquid, it will cling readily. This operation must be repeated until the cast is sufficiently thick, without being solid.

The fac-simile of the artist's handiwork is now made, and all that remains to be done is to get at it! The mould and the cast appear thoroughly incorporated, and the separation of the two things is a nice and interesting occupation.

Take a blunt chisel and a light hammer and chip away the outer crust of the mould. It will separate freely from the inner coating, which was colored and smeared with clay water. By this time the operator will see the use of this precaution. Having reached the thin colored coating, he knows he is near the model, and uses great care and delicacy in chipping off this stratum. When this has been finished, the cast is revealed—a perfect counterpart of the original.

Any defects that may have occurred in the casting may be repaired by mixing a little plaster thin, and allowing it to stand till it is nearly set, then, having well wetted the part, apply the plaster either with a sable hair pencil or a steel plaster tool.

Large basins of plaster are mixed with a bent iron spoon. The smaller tools are for working up the plaster model, when it is requisite to do so, though, as we have already remarked, it is better to leave the original touches unimproved.

The tool broad and bent at the ends is a French claw tool, very useful in giving lines or texture; while those with serrated edges will be found most useful for ordinary work. A "rat-tail" file, slightly curved at the point, is a good tool for taking off coarse lines. When a very smooth surface is necessary, it can be obtained with fine sandpaper.

CASTING FROM LIFE. POSTHUMOUS MASKS.

Casting from life is very unpleasant for the person operated upon, for the removal of the mould from the flesh involves the uprooting more or less of the minute hairs upon the skin.

If the face be the part taken, the pain is considerable, notwithstanding the precautions which are adopted.

The face must be well greased; the eye-lashes and brows being well buried in pomade or clay, and the small hairs on the skin smooth down. Whiskers, etc., should be well coated with clay. Quills have to be inserted in the nostrils for the purpose of respiration.

The patient must summon up more than ordinary resignation, as his features will presently be enveloped in a tight mask as of iron.

Laying him in a recumbent position, ask him to look pleasant, and having mixed the plaster with ochre in warm instead of cold water (as giving less shock, and also as the plaster will set more rapidly thus mixed), pour it without compunction or hesitation over his beaming features, and request him not to speak or laugh until the plaster is set. He is then at liberty to do either—if he can. Lay on more plaster, as described in the previous chapter.

You have now to extricate your friend from his intaglio. Fortunately for you he can't give vent to his feelings through the quills, which constitute the only channel available for his lungs, and you probably had the foresight to tie down his arms and legs. You can, therefore, wait with serenity till the plaster is thoroughly set; for as the success of your art is paramount, *you* must be patient.

MODELING—Continued.

INSTRUCTIONS IN THE ART OF MODELING—Continued.

When you are satisfied that the mould is safe, the crucial moment has arrived, and, like a skillful surgeon, regardless of everything except the success of the operation, you resolutely pull off the unyielding mask, and leave your patient to his reflections and a basin of soap and water.

You can offer to cast your friend's hand with less compunction. Let him plunge it into the basin of plaster to ensure every part of the surface being covered, then place it on a towel in the desired position. As the plaster sets, take a strong thread and lay it on the wet plaster along the hand, down the middle finger. A second thread may be laid from the wrist to the thumb. The object of those threads is to make divisions in the mould, and thus enable the hand to be withdrawn.

Now lay on the remaining plaster over the whole to a sufficient thickness. When it is *nearly* set, but still soft and wet, take the ends of the threads, and by jerking them sharply through the plaster, sections are made. The hand must, of course, be kept perfectly motionless. In a few minutes the plaster will be hard, when the mould may be burst asunder at the divisions cut by the thread, and the hand released. Fractures will probably occur in thin parts of the mould. These must be carefully preserved and cemented in their places with a solution of shellac and spirits of wine or naphtha. A cast can then be made in the ordinary way.

Limbs, and even the entire figure, can be moulded in this manner.

Casts taken from deceased persons are done in the same way, the whole head being usually moulded, instead of the face alone. Professional moulders should be employed in such cases.

TO MIX PLASTER OF PARIS.

Take so much water as appears requisite, and, if color is used, mix a small quantity of red or yellow ochre in it thoroughly; take the plaster by handfuls and scatter it rapidly and uniformly in the water till all the water appears taken up; then with a spatula or iron spoon beat it till it is quite smooth. Excessive stirring will tend to "rot" it. It is then ready for use. In laying it on the object, air bubbles are apt to form between the plaster and the work. These may be effectually dispersed by blowing the plaster vigorously over the surface, if a clay model is being covered. If a piece-mould is being charged, violent shaking will have the same effect. It should be borne in mind that plaster of Paris swells; and if it be mixed strong—that is, with more plaster than the water takes up, the heat and swelling are considerable enough to burst the object into which it is poured. Consequently, when plaster is to be cast into a mould, it is made thin, as it not only swells less, but also runs more perfectly into the finer parts.

CASTING IN BRONZE.

As the amateur is not likely to have occasion to try his hand upon this interesting and peculiar operation, a sketch only of it is requisite.

The metal employed being, of course, incandescent, no plaster mould could withstand its destructive power. Therefore a mould is made of material which will resist it—namely, an amalgam of loam and sand.

It is made in sections upon the pattern, much in the way a piece-mould is constructed, as already described. These pieces are put together and bound round with wire, sundry vents having been left to allow the steam and air to escape. An inner core is then formed by first squeezing clay in every part of the mould to the intended thickness of the metal; sand and loam are then pressed into the cavity until it is solid. This forms the core. It is withdrawn, and the interposing clay is carefully removed, when the core is replaced, and the mould, when thoroughly dry, is ready for the metal, which is poured in molten. The mould is subsequently broken away. Consequently, each casting involves a fresh mould, which necessarily increases the cost.

The cast on being revealed is found to be rough and often very faulty, being honey-combed with air holes. These have to be plugged with metal, which is usually screwed in, and the whole work has to be filed, rasped, chased, and finally colored, either with acids or a preparation of wax and bronze powder.

Complicated works in bronze are made in pieces, and riveted together; consequently, the models of such works should be free of irons in the limbs, neck, etc.; otherwise the sections cannot be made without risk of injury to the original.

WOOD CARVING.

Materials.

CARVING TOOLS IN SETS.

One Set in a Wooden Box.



No. 2031.

2031 A Set of 6, rosewood handles, forged steel blades, sharpened ready for use..... Per set. \$1 25

CARVING TOOLS.

Highest Quality Cast Steel.



No. 1. Firmers.

			Each.				Each.
2032	No. 1.	$\frac{1}{8}$ -inch.....	\$0 30	No. 1.	$\frac{1}{2}$ -inch.....	\$0 40	
	No. 1.	$\frac{1}{4}$ ".....	30	No. 1.	$\frac{5}{8}$ ".....	40	
	No. 1.	$\frac{3}{16}$ ".....	35	No. 1.	$\frac{3}{4}$ ".....	45	
	No. 1.	$\frac{1}{2}$ ".....	35	No. 1.	1 ".....	50	



No. 2. Skew Firmers or Corner Firmers.

			Each.				Each.
2033	No. 2.	$\frac{1}{8}$ -inch.....	\$0 30	No. 2.	$\frac{1}{2}$ -inch.....	\$0 40	
	No. 2.	$\frac{1}{4}$ ".....	30	No. 2.	$\frac{5}{8}$ ".....	40	
	No. 2.	$\frac{3}{16}$ ".....	35	No. 2.	$\frac{3}{4}$ ".....	45	
	No. 2.	$\frac{1}{2}$ ".....	35	No. 2.	1 ".....	50	

WOOD CARVING—Continued.

CARVING TOOLS—Continued.



No. 3. Straight Gouge.

	Each.		Each.
2034 No. 3. $\frac{1}{8}$ -inch	\$0 35	No. 3. $\frac{5}{8}$ -inch	\$0 45
No. 3. $\frac{1}{4}$ "	35	No. 3. $\frac{3}{4}$ "	50
No. 3. $\frac{3}{8}$ "	40	No. 3. 1 "	55
No. 3. $\frac{1}{2}$ "	40		



No. 5. Straight Gouge.

	Each.		Each.
2035 No. 5. $\frac{1}{8}$ -inch	\$0 35	No. 5. $\frac{5}{8}$ -inch	\$0 45
No. 5. $\frac{1}{4}$ "	35	No. 5. $\frac{3}{4}$ "	50
No. 5. $\frac{3}{8}$ "	40	No. 5. 1 "	55
No. 5. $\frac{1}{2}$ "	40		



No. 7. Straight Gouge.

	Each.		Each.
2036 No. 7. $\frac{1}{8}$ -inch	\$0 35	No. 7. $\frac{5}{8}$ -inch	\$0 45
No. 7. $\frac{1}{4}$ "	35	No. 7. $\frac{3}{4}$ "	50
No. 7. $\frac{3}{8}$ "	40	No. 7. 1 "	55
No. 7. $\frac{1}{2}$ "	40		



No. 9. Straight Gouge.

	Each.		Each.
2037 No. 9. $\frac{1}{8}$ -inch	\$0 35	No. 9. $\frac{5}{8}$ -inch	\$0 45
No. 9. $\frac{1}{4}$ "	35	No. 9. $\frac{3}{4}$ "	50
No. 9. $\frac{3}{8}$ "	40	No. 9. 1 "	55
No. 9. $\frac{1}{2}$ "	40		



No. 11. Straight Gouge.

	Each.		Each.
2038 No. 11. $\frac{1}{16}$ -inch	\$0 40	No. 11. $\frac{5}{16}$ -inch	\$0 45
No. 11. $\frac{1}{8}$ "	40	No. 11. $\frac{3}{8}$ "	50
No. 11. $\frac{3}{16}$ "	45	No. 11. $\frac{1}{2}$ "	50
No. 11. $\frac{1}{4}$ "	45		



No. 12. Long Bent Gouge.

	Each.		Each.
2039 No. 12. $\frac{1}{8}$ -inch	\$0 45	No. 12. $\frac{1}{2}$ -inch	\$0 50
No. 12. $\frac{1}{4}$ "	45	No. 12. $\frac{5}{8}$ "	55
No. 12. $\frac{3}{8}$ "	50		

WOOD CARVING—Continued.

CARVING TOOLS—Continued.



No. 14. Long Bent Gouge.

	Each.		Each.
2040 No. 14. $\frac{1}{8}$ -inch.....	\$0 45	No. 14. $\frac{1}{2}$ -inch.....	\$0 50
No. 14. $\frac{1}{4}$ ".....	45	No. 14. $\frac{3}{8}$ ".....	55
No. 14. $\frac{3}{8}$ ".....	50		



No. 16. Long Bent Gouge.

	Each.		Each.
2041 No. 16. $\frac{1}{8}$ -inch.....	\$0 45	No. 16. $\frac{1}{2}$ -inch.....	\$0 50
No. 16. $\frac{1}{4}$ ".....	45	No. 16. $\frac{5}{8}$ ".....	55
No. 16. $\frac{3}{8}$ ".....	50		



No. 18. Long Bent Gouge.

	Each.		Each.
2042 No. 18. $\frac{1}{8}$ -inch.....	\$0 45	No. 18. $\frac{1}{2}$ -inch.....	\$0 50
No. 18. $\frac{1}{4}$ ".....	45	No. 18. $\frac{3}{8}$ ".....	55
No. 18. $\frac{3}{8}$ ".....	50		



No. 20. Long Bent Gouges.

	Each.		Each.
2043 No. 20. $\frac{1}{8}$ -inch.....	\$0 45	No. 20. $\frac{3}{8}$ -inch.....	\$0 50
No. 20. $\frac{1}{4}$ ".....	45	No. 20. $\frac{1}{2}$ ".....	50



No. 21. Grounders or Short Bent Chisels.

	Each.		Each.
2044 No. 21. $\frac{1}{8}$ -inch.....	\$0 40	No. 21. $\frac{1}{2}$ -inch.....	\$0 45
No. 21. $\frac{1}{4}$ ".....	40	No. 21. $\frac{5}{8}$ ".....	50
No. 21. $\frac{3}{8}$ ".....	45		



No. 24. Grounders or Short Bent Gouges.

	Each.		Each.
2045 No. 24. $\frac{1}{8}$ -inch.....	\$0 45	No. 24. $\frac{3}{8}$ -inch.....	\$0 50
No. 24. $\frac{1}{4}$ ".....	45	No. 24. $\frac{1}{2}$ ".....	50

WOOD CARVING—Continued.

CARVING TOOLS—Continued.



No. 26. Short Bent Gouges.

		Each.		Each.
2046	No. 26. $\frac{1}{8}$ -inch	\$0 45	No. 26. $\frac{3}{8}$ -inch	\$0 50
	No. 26. $\frac{1}{4}$ "	45	No. 26. $\frac{1}{2}$ "	50



No. 28. Short Bent Gouges.

		Each.		Each.
2047	No. 28. $\frac{1}{8}$ -inch	\$0 45	No. 28. $\frac{3}{8}$ -inch	\$0 50
	No. 28. $\frac{1}{4}$ "	45	No. 28. $\frac{1}{2}$ "	50



No. 30. Short Bent Gouges or Fluters.

		Each.		Each.
2048	No. 30. $\frac{1}{8}$ -inch	\$0 45	No. 30. $\frac{3}{8}$ -inch	\$0 50
	No. 30. $\frac{1}{4}$ "	45	No. 30. $\frac{1}{2}$ "	50



No. 32. Short Bent Gouges or Fluters.

		Each.		Each.
2049	No. 32. $\frac{1}{8}$ -inch	\$0 45	No. 32. $\frac{3}{8}$ -inch	\$0 50
	No. 32. $\frac{1}{4}$ "	45	No. 32. $\frac{1}{2}$ "	50



No. 39. Straight. V Tools, or Parting Tools.

		Each.		Each.
2050	No. 39, Straight. $\frac{1}{8}$ -inch	\$0 55	No. 39, Straight. $\frac{3}{8}$ -inch	\$0 60
	No. 39, " $\frac{3}{16}$ "	55	No. 39, " $\frac{1}{2}$ "	65
	No. 39, " $\frac{1}{4}$ "	60		



No. 40. Bent. V Tools, or Parting Tools.

		Each.		Each.
2051	No. 40, Bent. $\frac{1}{8}$ -inch	\$0 60	No. 40, Bent. $\frac{3}{8}$ -inch	\$0 65
	No. 40, " $\frac{3}{16}$ "	60	No. 40, " $\frac{1}{2}$ "	70
	No. 40, " $\frac{1}{4}$ "	65		



No. 43. Bent. V Tools, or Parting Tools.

		Each.		Each.
2052	No. 43, Bent. $\frac{1}{8}$ -inch	\$0 60	No. 43, Bent. $\frac{3}{8}$ -inch	\$0 65
	No. 43, " $\frac{3}{16}$ "	60	No. 43, " $\frac{1}{2}$ "	70
	No. 43, " $\frac{1}{4}$ "	65		

WOOD CARVING—Continued.

WOOD CARVERS' HANDLES.

Wood Carvers' Tool, Applewood, Brass Ferrule, Assorted, Six Sizes.



No. 2053.

	Each.		Each.
2053 No. 1.....	\$0 10	No. 4.....	\$0 15
No. 2.....	10	No. 5.....	15
No. 3.....	10	No. 6.....	15
Assorted.....		.....Per doz.,	1 25
2054 Background Punches.....			25

ADDIS' WOOD CARVING TOOLS IN SETS.

2053 Set No. 1.—Comprises the following articles: 6 assorted tools, sharpened and handled, ready for use; 1 oil stone for general service; and 1 round-edged and V-shaped stone, to dress the inside edges of bent tools. We include with each set a manual or treatise on wood carving, with a number of excellent designs. Set, complete.....	\$4 75
2056 Set No. 2.—Same as above, but more complete, having six more tools, and two punches for frosting or background work. Set, complete.....	8 00
Punches, for backgrounds.....	Each, 20
Manual of Wood Carving—Leland.....	“ 35

INSTRUCTIONS IN THE ART OF WOOD CARVING.

Wood carving is a subject not involving any very considerable outlay in its study, and might be commenced at a very small cost indeed.

It appears exceedingly suitable for recreative classes.

In many places, no doubt, this work would be taken up but for the difficulty of obtaining teachers in an art which of late years has been much neglected in this country.

WOODS.

The proper selection of the wood will materially affect the ease and facility with which carving can be executed. It is important that the wood be close in the grain and well seasoned. Knots must be avoided, and even “figure,” so much admired for some purposes, renders wood very undesirable for the carver.

The most suitable wood for the earlier studies is *Yellow Pine*. It is exceedingly clean and free from knots, and perfectly straight in the grain. It cuts with great ease, offering little resistance to the tools.

At the same time it necessitates the utmost care to prevent the tool going too far, or the breaking off of portions not intended to be removed. This careful watchfulness is excellent discipline for the student, and therefore becomes a further recommendation to this wood. Its cheap price renders it also a desirable medium for first efforts. In skillful hands it is capable of very fine results.

Among the hard woods the one most commonly used is *Oak*, which lends itself very effectively to the art of the carver.

Italian and American Walnut are also much used. They carve most readily, especially the former. The cheery manner in cutting is most pleasant; and altogether it is easier to carve in this wood than any other.

Lime is also a favorite wood, soft to the tool; and as it does not split, very delicate work can be executed in it.

WOOD CARVING—Continued.

INSTRUCTIONS IN THE ART OF WOOD CARVING—Continued.

American Bass-wood sometimes takes the place of the *lime*, and although not so good, it has the merit of being much cheaper. If of first-rate quality, it is suitable for light and delicate work.

Sycamore is also a very close-grained wood employed for bread plates and similar articles, the margins of which are more or less carved.

Boxwood and Satin, much used for small and delicate work.

Mahogany, Teak, Rosewood, etc., are frequently used for carving, but, as a rule, only when certain conditions necessitate the employment of these particular woods.

THE CARVER'S BENCH.

The first essential is a good, strong and steady support upon which to carve, and although it is possible for an amateur to work upon an ordinary table, still if it be intended to carry the study far, or to approach the work with earnestness, a strong bench should certainly be provided.

Carver's Screw.—It is of the first importance that the work should be held firmly, without possibility of movement while carving, and of the various methods employed for this purpose the *bench screw* or clamp is undoubtedly preferable.

The Fret Saw.—Although this is not a carver's tool, it is frequently required to cut out ornamental forms in connection with carved work.

Tools.—This is the *general* name given to the cutting tools with which the carving is executed. They are known under the following heads:

Firmers.—The *Firmer* is like a joiner's chisel. It is used for firming or sinking the portions bounded by straight lines.

Skew-Firmers, or Corner Firmers, are similar, but being "oblique" at the end one corner comes to a sharp angle, which is very convenient for cutting up into confined positions.

Gouges.—These are similar tools, the only difference being that they are curved instead of flat. The impression given by holding the tool vertically and striking it is an arc of a circle, larger or smaller according to the character of the tool. They are called "*flat*," or "*extra flat*," when the impression is very slightly curved.

Fluters.—When the curve is not an arc, but very "quick," as the shape of a narrow V, it is called a Fluter, or if similar but small, *Veiner* is the term by which it is distinguished. It is a tool that is very useful for the small stalks and veins of leaves; as, used one way it cuts a small, deep groove, and when turned over will carve a fine stem in relief.

V Tools.—The V tool is in *section* the same form as the letter V, hence the name. It is often used in simple *incised* work.

Grounders or Bent Background Tools.—These, as their name implies, are employed for cleaning out the background down between the various portions of raised ornament where the other tools cannot reach. The bend in the tool enables the cutting edge to be employed in very confined spaces. They are made in various sizes.

All these tools can be purchased "*handled*" and ground ready for use.

Bent Tools.—Both chisels and gouges, in addition to straight ones, are also made *bent* or curved in the shank. These are intended for special work, or for reaching parts where the ordinary tools cannot cut. They are not required for the work comprised within the scope of this book.

There is an unlimited number and variety of the above tools, but beginners only require a small set.

The tools are best kept in a case which will roll up. It may be made of black American cloth, and lined with green baize, with pockets, into which the ends of the tools are placed.

Strop.—The *strop* is a flat piece of leather, usually about ten inches long and three inches wide. It is prepared with a mixture consisting of tallow and fine emery powder, which may be

WOOD CARVING—Continued.

INSTRUCTIONS IN THE ART OF WOOD CARVING—Continued.

done by the carver, or the *strop* may be purchased ready for use. It is employed to finish the edge on the cutting tools.

Slips.—These consist of Turkey, Washita, or Arkansas stones. They are usually about six or eight inches long.

Oilstone.—An *oilstone*, similar to that used by joiners, is also of service for sharpening firmers, etc.

Grindstone.—A *grindstone*, about eight or ten inches in diameter, is also necessary for grinding the tools.

Glue Pot.—An ordinary glue pot must be provided.

THE SHARPENING AND MANAGEMENT OF TOOLS.

It is a first essential to clean, good cutting that the tools be absolutely sharp and in a workmanlike condition.

It is often the case that "*amateurs*" work with tools in a state that no "*professional*" carver could produce satisfactory work with. A good workman always has his tools well kept, and never cares for other people to use them for fear of damage to them. As it is admitted that the power to sharpen well is so necessary to success in carving, the student must spare no trouble to make himself absolute master of this accomplishment.

The grindstone should be put in motion so as to revolve "*from*" the grinder. The stone must be well wetted and kept wet while grinding. The practice of grinding should be commenced on the square "*firmer*," the most simple tool to grind. The tool is held firmly in the right hand, the pressure being placed upon it by means of the fingers of the left hand.

Grinding.—The grindstone that is most convenient for the purpose is one about 8 or 10 inches in diameter, provided with a trough to contain water. It is an advantage if it can be worked by the foot by means of a treadle. The bevel should be longer than that ground by joiners upon their chisels.

It must be remembered that carver's tools are sharpened on "*both*" sides, and not on one only, like the joiner's chisel. After grinding on the grindstone, the tools must be sharpened on the "*oilstone*" or "*slips*," and finished on the "*strop*" before they are ready for use. If firmers, they may be sharpened on the oilstone laid flat on the bench. The chisel should be held at such an angle with the stone that the "*facets*" may be ground on the two sides, so as to contain an angle between them of not more than about 30°. The tool is held in the right hand and pressure placed upon it by means of the first two fingers of the left hand. In this position the tool is made to travel from one end. A flat-bent or background tool is sharpened in the same manner.

The cutting edge must be perfectly true; in other words, it must cut with uniform keenness throughout, and must be exceedingly sharp. Looking on the cutting edge, no *white specks* will be visible when the proper condition has been reached. The appearance of white lines or specks is produced by the edge being visible, and shows that there it is too thick to cut keenly. Sharpening must be resorted to again till this defect is overcome. In the use of the "*oilstone*," and all the "*slips*," oil is used instead of water to moisten the stone.

The sharpening of "*gouges*," or tools in which there is a "*sweep*" or "*curve*" in the cutting edge, is a much more difficult operation than sharpening a "*flat*" tool. The grinding of these, as already mentioned, is sometimes performed by having ruts in the grindstone which will fit the "*sweep*" or curve of the tool; but tools are of so many varieties, as regards their width and the flatness or roundness of the curves of the cutting edge, that several stones would be necessitated to sharpen a comparatively small number of tools. The best way to grind these tools is to maintain a rolling motion in the tool itself, which in other respects is held like the chisel. In sharpening gouges on the "*slip*," the slip is laid on the bench, and the tool held in the *right hand*, with the first two fingers of the *left hand* to give the necessary pressure. To sharpen the inside edge of the tool, it is necessary to select a suitable slip, or to prepare one for the purpose. When the "*slip*" is found to "*exactly*" fit the curve of the tool, hold the tool so that the concave curve of the gouge fits the convex curve of the stone, and passing the tool up and down the "*slip*," put the requisite pressure on by means of the forefinger of the right hand.

WOOD CARVING—Continued.

INSTRUCTIONS IN THE ART OF WOOD CARVING—Continued.

The sharpening of the V tool is done in a similar manner, only using a small slip of triangular section for the inside. In all cases, after the tools have been sharpened on the slip, they must be finished on the "*strop*." In the case of the flat tools, this may be convenient. The inside of curved tools must also be "*stropped*." The strop is pinched up between the finger and thumb so as to form a rounded portion to fit the inside of the tool. As before stated, the student must not consider any pains too great to make himself thorough master of the tools, and able to keep a perfect edge upon them. It is true that professional carvers differ somewhat in their methods of sharpening, but it will be better for the student to follow the system described, which will certainly give most perfect results.

The Method.—We have purposely devoted more time to the preparation and handling of carving tools than we intend to give in directing their use. For in the former case the beginner could not possibly secure satisfactory results without definite instructions, while with a few suggestions in regard to the broader principles governing the actual work he is at liberty to adopt this or that method of securing certain effects, and before he has proceeded far he will find that he is self-taught in regard to many things that could not possibly be described in an article of this nature.

It is assumed that the foregoing instructions have been fully mastered, and that the student is sufficiently skillful to put new tools into a perfectly workmanlike state, and keep them in that condition.

It is much the best for the student to commence to cut "*yellow pine*." True, it presents certain difficulties that are absent in the hard woods, but its cheapness and its softness seem to commend it for experimental beginnings, while its tendency to split in the direction of the grain is, after all, valuable training, as affording opportunities to the student of studying the cut in relation to the grain, so as to overcome this inherent difficulty.

Before trying to cut any *pattern*, it will be best to practice a little experimental cutting with the "*gouge*."

Take a small piece of "*yellow pine*," say about six inches square and one-fourth of an inch thick. It must be "*wrought*"—that is, "*planed*." Place it upon the bench and secure firmly by means of a clamp. It must be screwed up till there is no possibility of the pine moving in any way before the pressure of the tool. Remember to place a thin piece of wood or several thicknesses of paper between the work and the teeth of the clamp to prevent the indentations of the former, which would otherwise occur.

Take the gouge, say one about a one-fourth inch in width, in the right hand, so that the top of the handle lies in the hollow of the palm, with the two first fingers resting upon the lower part of the handle.

Place the cutting edge of the "*gouge*" with the convexity downwards, in contact with the wood.

Place the first two fingers of the left hand upon the shank of the tool, for the purpose of steadying and guiding it.

Now press forward the tool with the right hand, when a groove will be cut in the panel.

In cutting the groove to the end of the panel be very careful to keep it "*straight*," the same width across throughout, and the same depth. Two parallel pencil lines might be ruled on the panel to form the guide for the width, etc., if desired.

Many of these grooves should be *cut*, some running with the grain of the wood and others across the grain.

It will soon be found that much greater care is required in cutting in the direction of the grain than across it, and that the latter is much more pleasant.

When you have acquired familiarity with the "*gouge*," take up your several tools in turn and at the sacrifice of cheap pine boards secure ease in handling each.

All the work at present must be done by the hand without the help of the mallet.

For additional exercise, take a piece of yellow pine, 6 in. by 6 in. and $\frac{1}{4}$ in. thick, "*wrought*" on both sides. Upon this draw in pencil a simple pattern.

The pattern is to be perfectly flat on its upper surface, and is produced by "*sinking*" the intervening portions.

To do this, take a "*firmer chisel*" for the straight line parts, and, holding the tool firmly in the right hand, and slightly steadying it with the left hand, press it down in a vertical direction till it penetrates the wood about $\frac{1}{8}$ of an inch.

WOOD CARVING—Continued.

INSTRUCTIONS IN THE ART OF WOOD CARVING—Continued.

This must be done with great neatness, fitting the "*firmer*" exactly to the outline. If the straight line be a long one, a broad chisel should be used; if only a short bit, a small "*firmer*" must be selected.

The pressure must be given entirely by the right hand, and in soft wood like yellow pine, to the depth required in the present work; this will not be found difficult, even in the case of children or delicate persons. When the tools are properly used, it is surprising how much can be accomplished without the use of the mallet.

In this work the tool should be as large as can be conveniently used.

When the gouge has been fitted to the curve it is used exactly as the firmer, and in this case must be forced downwards about $\frac{1}{8}$ of an inch.

When a portion of the pattern has been completely outlined in this way, the intervening or sunk portion must be removed.

The student will probably soon encounter one of the difficulties of working in "*pine*," viz.: its tendency to splinter. To counteract this, great care must be exercised.

In this, as in other arts, common sense will give valuable aid. The first thought will be to avoid the removal of parts forming the ornament. A slip of the tool may give a very unfortunate result, and yet the ready cutting of pine invites the slip, and the long, straight, continuous grain lengthens out the mischief.

The object is to lower this surface to the required depth, and to finish it perfectly level and smooth. When lowered *nearly* the amount desired, a "bent-back ground tool," or "grounder," must be used to produce the level surface, as it will be noticed that the gouge leaves evidence of scoop-like workings which the grounder will not.

The grounder must be held so that the cutting edge is nearly level down on the wood.

Very great care must be exercised in removing the parts between the raised portions, or serious mischief may be done. There is one error into which beginners often fall, and this should be carefully guarded against—that is, using the tool as a lever. It should be remembered that a tool is a "*cutting*" instrument, and that consequently the steel must be hard and *brittle*. It is, therefore, evident that it is unsuitable for use as a lever, and, generally, when such is attempted, a portion of the end flies off, demonstrating the ill usage to which the tool has been subjected, and punishing the novice by necessitating regrinding till the broken part is level again.

Remember, then, never to lift the tool to break up the wood, but let the cut be continuous to the end. It may follow a curved course, but it must remove the wood by "*cutting*," and clear its point without leverage.

If the student has practiced till he can cut simple exercises on pine neatly and well, he may try one in oak or American walnut. In either case, the wood must be planed up true and at least $\frac{1}{4}$ inch thick.

A careful drawing of a design must be made as before. You should weaken the wood in the sunk parts by a few gouge cuts before sinking the outline.

The effectiveness of your work is much increased by the treatment of the ground, which should be rough, to contrast with the smooth surface of the pattern. To do this a punch is employed. A punch is a tool the end of which has been cut across in various ways, so that when the tool is held upright on this end, and the top is struck, a roughness or pattern is produced on the wood. The student can easily make for himself such as will give good results. A ready way of making such a tool is to take a French wire nail and file off a little of the end. This must be done flat at right angles to the axis of the nail. Then, with the edge of a flat file, make two cuts at right angles to each other. If the nail be large enough on the square end, more cuts may be put in; in fact, with a little ingenuity, the end may be greatly varied.

As a rule, regular and fixed forms are *not* desirable on the background, but what is wanted is an irregular and *uncertain* figure of similar character throughout the space.

The punch should be held upright, and *tapped* in the manner explained. Between the "*taps*" the punch should be slightly turned round and moved forward. This will prevent a too mechanical appearance. It is usual to use a *hammer* in striking *steel* tools, but it will be found better to make an exception at times and use a *mallet*.

Before attempting to model your relief work, thoroughly master plain sinking, and the skill required in the former branch will prepare you for round and detail work, upon which we do not feel that it is either necessary or expedient for us to touch.

WOOD CARVING—Continued.

Treatment of Woods.

FINISHING, POLISHING, STAINING, ETC. COLORING AND FINISHING CARVINGS. APPLICABLE TO ALL WOODS.

In many cases, when the carving is finished, it is not desired to leave it the natural color of the wood. Carving executed in the ordinary light-colored oak is usually toned down to a dark brown or to a color nearly black. Many methods are resorted to for this purpose, the principal being as follows:

Oiling.—By simply brushing a plentiful supply of raw linseed oil over the work, it materially deepens at once, and by repeating the process, it eventually becomes very much darkened; but on some woods it leaves rather a raw look, instead of the rich, mellow effect which comes of age.

It, however, depends largely upon the care with which the work is carried out. After the oil has well penetrated the wood without leaving any *deposit* on the surface, the work should be vigorously brushed with a clothes brush. This brushing must be continued until a kind of dead polish is obtained.

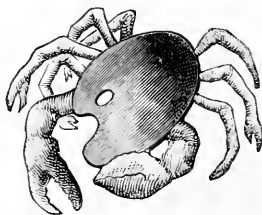
Dyes and Stains.—Large numbers of these are placed upon the market, of which we claim to carry the superior line. (See Index.)

After staining the wood to the desired color in this way, it can be oiled as before described, taking care that it has dried from the staining before beginning to oil.

Ammonia.—The favorite way of coloring oak is by means of ammonia. The ammonia may be diluted with water and painted on the oak with a camel hair brush. According to its strength, it will darken the oak to any color desired down to almost black.

Finishing.—In finishing, it may be oiled as previously explained, and brushed till a good surface is obtained, or the old method of beeswax and turpentine may be used. In the latter case, the beeswax must be carefully dissolved in the turpentine and a creamy paste produced. This must be carefully brushed over the carving, and afterwards polished as before described, by means of a clothes brush. No beeswax must be left on the surface, but the more friction that is applied, the better the result. In delicate carving, this brushing is impossible, as the work would be broken, and in such cases all attempts at polishing should be abandoned.

Hand-Books on Wood Carving. (See Index.)



Etching on Copper and Zinc.

MATERIALS.

OUTFITS.

- 2057 Outfit A.**—Walnut oiled box, containing copper plate, $4\frac{3}{4} \times 6\frac{1}{4}$ inches; etching needles Nos. 1 and 2; burnisher No. 18; scraper No. 7; dabber; oilstone; japanned tray; nitric acid; alcohol; turpentine; black and white ground; tracing paper and sponge..... Each, \$10 00
- 2058 Outfit B.**—Same as Outfit A, but in japanned tin box..... " 8 75
- 2059 Outfit C.**—Walnut oiled box, containing copper plate, $4\frac{3}{4} \times 6\frac{1}{4}$ inches; etching needles Nos. 1 and 2; dry point No. 3; oval burnisher No. 19; scraper No. 12; square engravers' point No. 26; vise No. 23; black and white ground; dabber; candle; tray; eyeglass; oilstone; stopping-out varnish; nitric acid and alcohol. Each, 15 00

TOOLS AND SUPPLIES.

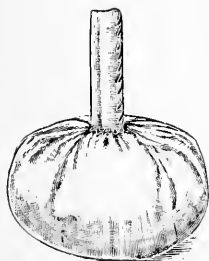
SUPERIOR COPPER PLATES.

Size.	Each.	Size.	Each.
2060 $2\frac{3}{8} \times 2\frac{1}{4}$ inches.....	\$0 15	$3 \times 4\frac{1}{2}$ inches.....	\$0 30
$\frac{3}{8} \times 4$ ".....	25	4×5 ".....	45
Larger sizes made to order.....		Price, per square inch,	02 $\frac{1}{2}$
Larger " " extra thick.....		" " ".....	03 $\frac{1}{2}$

SUPERIOR ZINC PLATES.

2061 Any size up to 5×7 inches.....	Per square inch, \$0	02 $\frac{1}{2}$
Any size " 8×10 ".....	" "	03 $\frac{1}{2}$
Any size " 10×12 ".....	" "	04
Any size " 12×14 ".....	" "	06
Larger than 12×14 inches.....	" "	07

Steel plates, all sizes, made to order.



No. 2081. Dabber.



No. 2075. Ground.



No. 2080. Rubber Roller.

2062 No. 24. Engraving Needles, round, wood handle.....	Each, \$0	30
2063 No. 25. " " " without handle.....	"	15
2064 No. 26. " Points, square, in wood handle.....	"	35
2065 No. 27. " " " without wood handle.....	"	15
2066 No. 28. " " round, angular, in handle.....	"	35
2067 No. 29. " " tongue shape.....	"	35

ETCHING—Continued.

TOOLS AND SUPPLIES—Continued.

2068	No. 30. Roulettes for Skies	Each, \$1 20
2069	No. 31. " " Tinting	" 1 00
2070	No. 32. " " Dotting	" 1 50
2071	*Steel Etching Needle, ebony handle.....	" 65
2072	Steel Dry Point, double, cork handle.....	" 45
2073	Steel Burnishers, round point, rosewood handle	" 95
2074	Steel " oval " " "	" 70
2075	Black Etching, ground in balls, wrapped in silk.....	" 30
2076	White " " " " "	" 30
2077	*Walling Wax in cakes.....	" 30
2078	*Stopping-out Varnish, black.....	Per bottle, 30
2079	Liquid, ground.....	" 30
2080	*Rubber Roller, for laying ground, 17 $\frac{1}{8}$ inches.....	Each, 1 00
2081	*Dabber.....	" 30
2082	Superior Etching Acid	Per bottle, 45
2083	*Porcelain Bath Dishes, 4x 4.....	Each, 35
2084	Porcelain " " 8x10	" 1 35
2085	Porcelain " " 11x14	" 3 00
2086	*Superior Printing Ink.....	Per bottle, 75
2087	Etching Press, 11-inch roller	Each, 16 00
2088	Black Japauned Trays, 7x 9	" 45
2089	Black " " 10x12	" 75
2090	Black " " 15x18	" 1 50
2091	Hard Rubber Trays, 4x 5	" 85
2092	Hard " " 7x 9	" 1 50
2093	Hard " " 12x16	" 4 75

* Articles the amateur will require to practice the art.

THE ART OF ETCHING.

INTRODUCTION.

Perhaps it is as well to begin by saying that by etching we do not mean pen and ink drawing on paper. The art of etching is, however, a simple means by which such persons as are skilled in pen and ink drawing may reproduce their designs in large numbers with great delicacy and an added depth of effect.

The plate is covered with a thin coat of wax or other substitute upon which the acid employed has no power. The lines are drawn with a needle so as to cut through the wax; the plate is then immersed in the acid till it has corroded the metal to a sufficient depth wherever the lines have been drawn. A print from the plate is produced by filling the lines with ink, and, after having laid damp paper upon the surface, subjecting it to such pressure as forces the paper into the lines. By this means the ink is transferred to the paper, and the result is an impression or proof. It will be thus seen that the process is the reverse of that of wood-cut or type printing. In a wood-cut the surface only prints, the engraved parts producing white; in a copper plate the surface, being wiped clean, produces white, and the engraved lines yield the print.

Comparison of a section of the etched line with the engraved line on copper shows us a furrow somewhat resembling the shape of the letter U in the former case, and of the letter V in the latter. There is, consequently, a greater quantity of ink held in the etched line, with a corresponding gain of richness of effect in the line when printed.

The natural capabilities of the art of etching are very great, and there seems to us no reason for restricting its range. For the amateur there is certainly no field at once so interesting and improving as that opened to him through this branch of art.

INSTRUCTIONS.

Laying the Ground.—The first thing to do will be to clean the plate thoroughly. Rub it well with a soft cotton rag and benzine or spirits of turpentine; finish with whiting, which must

ETCHING—Continued.

THE ART OF ETCHING—Continued.

be removed with a clean rag. Now take hold of the plate in the middle of the longest side with the hand-vice, inserting several thicknesses of blotting paper, so as not to mark the plate. Hold it in your left hand over a stove or gas-jet till it is heated evenly throughout, and with the other hand press on it the ball of etching ground, wrapped up in silk. As soon as the ground melts through the silk, rub it all over the surface of the plate, taking care that the plate remains just hot enough to melt the ground. If it is too hot, the ground will begin to boil and will finally burn. The bubbles caused by boiling are apt to leave air-holes in the ground, through which the acid may bite little holes in the plate; burning ruins the ground altogether, so that it cracks off under the point, or flakes off when immersed in the acid. After you have distributed the ground all over the plate, you dab it with the dabber till it is spread evenly throughout. If this is properly done, the ground will be thin and evenly spread, and of a clear golden color, showing the shine of the copper well through it. An extremely thin layer of ground is sufficient. If you have too much, you may clean the dabber repeatedly on a piece of coarse muslin. In this way the superfluous ground is easily removed.

Smoking the Ground.—Still holding the plate with the hand-vice, heat it again from beneath, and watch the surface till the ground melts sufficiently to make it shine all over. Then without allowing it to cool, with one hand hold it up in the air inverted, and with the other hold burning wax tapers, twisted together, underneath it. The flame should just touch the plate, no more, and should be passed rapidly along its surface, never resting at one place, or else it would burn it. If this is properly done, the smoke will incorporate itself with the ground all over the plate, and the result will be an even black surface of a somewhat polished appearance. Should it be found that the plate is only partially blackened, it may be heated again, and again smoked. If the ground has been allowed to cool, there will be dull places where the smoke is not incorporated with it, and if the flame has been allowed to remain on one spot, dull places will occur, showing that the ground has been burned.

The Tracing.—The plate being now prepared, the next step is to make a tracing of the subject. Probably no two etchers secure their tracing on the plate in the same manner, and the great majority wash without tracing. One method is to trace over red or white transfer paper; another, to outline the sketch on sheet gelatine with a fine etching needle and rub black or white lead powder into the tracing, which may be transferred to the plate by rubbing the back of the gelatine with the burnisher. If the burnisher is occasionally dipped in olive oil it will be found to work more freely.

Work With the Needle.—The etcher sits facing a window, with a tissue paper screen between him and the light. This obviates the dazzling effect of the light on the lines of bright copper laid bare by the needle. Owing to this brightness of the lines made by the needle on the black ground, a deceptive effect is produced of the lines being closer together than they really are. This illusion is painfully dispelled when the etcher sees the first proof of his work, which he generally finds to be much more open in the lines, and therefore much less finished than he had fondly hoped.

It is necessary to have several needles of different degrees of sharpness—one for foreground work being very blunt, indeed. In very large plates the point of a penknife may be used for bold touches.

A large, soft brush is to be kept constantly at hand to remove from the plate the particles of etching ground detached by the needle.

A varying pressure applied to the needle in making the strokes on the copper has a very appreciable effect on the eventual result. If just sufficient force is used to bare the copper without scratching it, the acid will be slow in attacking the lines; but in places where the copper has been deeply scratched the acid will attack the lines instantly and vigorously. In this way considerable gradation is often unconsciously obtained, it being natural to draw the darkest parts with the greatest firmness. Care must be taken, however, in all cases to really touch the copper, as sometimes very delicate lines leave a thin film of ground which resists the acid in parts, producing lines some of which are broken, while others fail altogether.

Should the etcher wish to take out any lines that he has drawn, they must be painted over with the stopping-out varnish. When the varnish is dry and not yet hard, other lines can be drawn through it; but it is not so easy to work upon as the original ground. Should, therefore,

ETCHING—Continued.

THE ART OF ETCHING—Continued.

any very serious alteration be contemplated, it will be best to stop-out that part of the plate entirely, and add new work afterwards in a later state of the plate.

The Biting-In.—Before the plate is immersed in the acid it must have been painted on the back and edges with Brunswick black or stopping-out varnish, which must have been allowed to dry thoroughly. It is as well to get this done on a previous day. It is also necessary to examine the etching carefully, and paint with stopping-out varnish any accidental scratches that may have been made. You must wait till the stopping-out varnish is sufficiently dry to resist the acid, which is shown by its becoming dull when breathed upon. The plate may be then immersed in the acid bath. A frosted appearance on the lines will soon be seen, which consists of small bubbles, and must be gently removed with a feather or soft brush. Should the frosted appearance caused by the small bubbles become general over the plate in less than half a minute, the action is too rapid to be safely trusted. The plate must be taken out of the bath and some water added. If, on the other hand, the appearance mentioned is not visible at the half-minute, pure acid must be added till the requisite strength is reached. While leaning over the bath, care should be taken to inhale the fumes as little as possible. Have by you a large basin of pure water, in which to wash the plate when it is withdrawn from the bath, and your fingers in case you should wet them with the acid. When you think that the mordant has sufficiently corroded the palest lines, the plate is to be taken out of the bath. To avoid putting the fingers in the bath, a piece of wood cut thin at the end may be used to lift one side of the plate, and that part of the hand likely to come in contact with the acid should be slightly greased.

The plate should be dried by fanning till it is quite dry. When it is dry, the lines that are sufficiently bitten in are to be painted out with stopping-out varnish. The greatest care is necessary in doing this, as any part of a line that is overlooked—in a sky, for instance—may afterward be found to be so deeply bitten as to give serious trouble. If at any time in doubt as to the depth of line produced by the acid, a small part of the ground should be removed with spirits of turpentine, and the work inspected. This part, of course, should be stopped-out again before proceeding. Should the stopping-out varnish be too thick to flow freely from the brush, dilute it with spirits of turpentine, but it must not be thin.

For etching on steel or zinc, one part of acid to seven or eight of water is sufficient, and even with this weak mordant the biting is very rapid. For work on copper about half water and half acid is usually the proportion. The mixture of water with these acids produces heat, which must be allowed to subside before the mordant is poured on the plate.

The same process of immersion and stopping-out is to be repeated again and again till the darkest lines are sufficiently bitten, or till the ground breaks up—from four to six times is usually all that is required. The plate is now ready to be cleaned with spirits of turpentine or benzine, and to be taken to a good printer that the etcher may see what he has really done—in other words, to get a proof of the first state of the plate.

Re-Biting.—The purpose of re-biting is to deepen such lines as are found, on the plate being proved, to be insufficiently bitten. The great advantage of this process is that it tends to finish the plate without the addition of more lines, and so helps to keep the quality of freshness which the addition of more work is likely to impair. It is a very delicate operation, and is performed at some risk of foul biting. There are two methods of preparing the plate for the process—with the dabber and with the roller. The plate must be most thoroughly cleaned, first with spirits of turpentine and afterwards with bread, chloroform or a solution of pearlash. If the last is used, the plate must be well rinsed afterwards with pure water. Whiting is then to be rubbed into the lines, and the surface wiped clean with chamois leather. This being done, heat a spare piece of copper and melt some etching ground on it, then with a silk dabber take up a small quantity of the ground and dab it very lightly all over the plate which is to be re-bitten. This plate must also have been previously heated.

When the roller is employed instead of the dabber, an extra piece of copper is used as before, but neither of the plates are to be heated. A little of the liquid etching ground (of the consistency of cream) is put onto the roller with a palette knife. The roller is then passed backwards and forwards over the extra plate till it is evenly and thinly charged with the ground, when it is transferred to the etching plate, over which it is lightly passed many times in all directions. Heat the plate slightly, and when it is cool it is ready for biting and stopping-out as before. Dust will ruin your work. Liquid ground, if too thick, may be thinned with a few drops of oil of lavender. The

ETCHING—Continued.

THE ART OF ETCHING—Continued.

roller cannot be used on an imperfect or an uneven plate. If lines are very shallow indeed it is impossible to prevent their getting filled up with the etching ground, and it is then found necessary to have recourse to re-etching.

Re-Etching is the adding of fresh lines after the plate has been bitten in and the first etching ground cleaned off. For this purpose transparent etching ground is generally used. The process of biting-in after re-etching is the same as has been already described.

Alterations and Corrections.—We have already detailed how the effect of an etching may be altered by deepening the lines or by the addition of more work, and we have now to speak of such correction as may have to be done by reducing or effacing faulty passages.

The scraper and the burnisher are used when isolated passages are to be reduced in strength, care being taken that the scraper is kept constantly sharpened and the burnisher brilliantly polished. When a large part of the plate is slightly over-bitten, as often happens with a sky, it may be rendered paler by being rubbed with a thick stick of charcoal and olive oil. If water be substituted for olive oil, the charcoal will act more powerfully.

Printing.—The process of printing is as follows: The plate is first warmed by being laid on a sheet of iron, under which small gas-jets or candles are kept constantly burning; then the ink is spread onto the surface and into the lines with a dabber. The superfluous ink is next wiped off with a coarse muslin rag, care being taken not to wipe the ink out of the lines while removing it from the surface. Simple as this appears when done by a practiced hand, it really requires considerable skill. The palm of the hand is then rubbed over with a little whiting, and a final polish is given to the plate with it. The plate is now placed on the traveling board or bed of the press, and on it is laid the paper, which should have been previously damped; over all are laid several thicknesses of flannel. On the handle of the press being turned the cylinders revolve, and the traveling board passes between them, carrying the plate with it. By the pressure thus obtained the paper is driven into the lines on the plate, the process being facilitated by the elasticity of the flannel. When the plate has thus passed through the press, it will be found that the paper adheres so closely to the plate that much care is required not to tear the paper in removing it. This should be done by lifting it slowly from one corner.

A proof obtained by wiping the plate as clean as possible is said to be "naturally" printed, and the impression thus obtained is said to show the state of the plate. "Artificial" printing consists, firstly, in leaving a tint of ink on part of the plate, instead of cleaning it thoroughly; and, secondly, in the process called "retroussage." After the plate has been inked and wiped clean, it is gone over with a piece of very soft muslin, and a certain amount of ink is thus brought up out of the lines, which gives in printing a soft tint round each line. The whole effect is thus enriched and softened, and the hard wiriness, so often complained of in etchings, is neutralized.

The selection of a suitable paper on which to print his etching should be a matter of careful consideration to the etcher. In some instances experiment only will enable him to decide what paper will best suit his subject. Harding's paper is probably the best and safest for the beginner to employ. Japanese, India, Whatman's and many others are suitable for certain work.

The color of the ink is a matter of similar importance to the selection of the paper; but here also we do not feel called upon to attempt to direct the student, as it, as well, is largely a question of taste.

Drypoint.—Drypoint etching is a misnomer; the word etching is derived from the Dutch *etsen*, and refers to the biting-in of the acid.

Drypoint is a species of engraving in which the lines are cut into the copper by a pointed steel tool. The lines thus cut raise a ridge, technically called the burr, and this ridge holds a good deal of ink when the plate is printed. The burr can be scraped away when desirable, leaving the lines clean and resembling in appearance very lightly-etched work. Drypoint has a peculiarly soft and rich effect, and is admirably suited for rendering certain textures, such as fur and velvet. Some artists, when etching figure subjects, prefer to leave the flesh to be done afterwards with the drypoint. Great delicacy is insured by this means, but at some cost of unity of effect; to a practiced eye the flesh does not seem to belong to the rest of the plate.

Imitation Pottery.

MATERIALS.

Aloe's "Faience Glaze" Per bottle, \$0 35

INSTRUCTIONS.

This style of decoration is very effective and artistic when skillfully done. Quite a number of the well known wares are susceptible of very close imitation in this method; and for original pieces for treatment, the student can select from any ware or material that is of artistic shape. Ordinary sewer pipes can be made to resemble, to a marked degree, pottery umbrella stands.

The colors employed are the ordinary oil colors in tubes, and it is simply necessary to cover the finish of the completed piece with a heavy coat of Faience Glaze to produce the underglaze effect of fired pottery.

Spatter Work.

MATERIALS.

Tooth Brushes, expressly selected for this work Each, \$0 25
India Ink, " " " " " Per bottle, 25

INSTRUCTIONS.

Spatter work, while quite simple to *do*, is much more difficult to *do well*. If judgment and taste are exercised in its employment, truly artistic and beautiful effects may be obtained. While a finished piece of the decoration presents an appearance of having required a great amount of work and elaborate detail, the reverse is actually the case, as we will endeavor to show in the following brief directions:

For designs the beginner had best content himself with leaves and ferns. Later he is at liberty to introduce letters, scrolls, flowers, geometrical figures, etc. And while the art, if we may call it so, may be employed advantageously in decorating chess and checker boards, curtains, drapery of all kinds, leather, silk or wood, glove boxes, table covers, handkerchiefs, doilies, bed spreads, shams, and in short almost any material or fabric used for decorative purposes, we suggest that his first effort should be on paper.

The Method.—Select a few choice leaves or ferns, the latter preferred, and arrange in a graceful cluster on a piece of drawing paper which you have previously secured to a drawing board or table. Fasten the leaves in position with touches of gum or small pins. The whole is now spattered with India ink; this is done by dipping a tooth or nail brush into the ink and rubbing the hairs of a dry brush against the hairs of the brush you have just charged with color. The design should be sprayed until the center is quite dark, letting the outside edges blend into the white paper. When dry, all or only a few of the leaves may be removed; in the latter case, the white paper exposed by their removal is slightly sprayed, this has the effect of shading them, and when the entire cluster is taken from the paper the white leaves stand out in relief and the effect is quite pleasing. Colored inks may be employed, and when working on linen, indelible ink should be used so that the article can be washed without damage.

Pen and Ink Drawing.

(COMMONLY CALLED ETCHING.)

MATERIALS NECESSARY.

Pens.—We hesitate to advise the student in his selection of a suitable instrument for this work, and in fact it is not just to him that we express an opinion in this matter. The best pens of the several manufactures will be found listed on page 132, and as they cost but a few cents each, it would probably be advisable for him to have an assortment in place of blindly following the dictates of this or that authority.

Paper.—Bristol board is most commonly used for pen and ink drawing, but any paper of good quality having a hard, smooth surface may be used. Whatman's hot pressed is undoubtedly to be preferred if paper is preferred to board.

The suitability of the pen as an instrument for the use of a beginner is thus ably advocated by Mr. Ruskin: "It is better to take in early practice some instrument with a hard and fine point, both that we may give some support to the hand, and that by working over the subject with so delicate a point, the attention may be properly directed to all the most minute parts of it. Even the best artists need occasionally to study subjects with a pointed instrument, in order thus to discipline their attention; and a beginner must do so for a considerable period." The superiority of work done with pen and ink over that produced with the black lead-pencil, consists in its much more extended range of tone, and its total freedom from unpleasant shine in the darks.

When the question arises as to what examples a beginner should copy who wishes to practice the art of pen and ink drawing, the difficulty will be to select from the great and varied stores of material that everywhere abound to his hand. All steel and copper-plate engravings that have been executed in line, and all wood engravings, are within the *possible* range of pen and ink drawing.

The immense strides made lately in the processes of mechanical reproduction tend to show that the art of pen and ink drawing is becoming every day more worth attention on its own account. Our illustrated newspapers and periodicals only require suitable designs from artists for photographic reproduction.

We mention this that the student may at once see the possibilities that are open for one who becomes proficient in the art.

We cannot too strongly urge the student who is earnest in his study of this important branch of art to analyze carefully the reproduced work to be found in our magazines and art publications of to-day. Ten minutes close study of a reproduced sketch from the pen of Joseph Pennell or the minute dissection of an etching by Whistler, Haydon or Gravesend, will advance the conscientious student further in his efforts to master the art than the absorption of all the works written on the subject. In pen and ink drawing, as in all other branches of art where technique and handling are important factors, we plead, in the face of an opposition from many antiquated "authorities," that the student select the best originals obtainable, and copy, copy, copy.

Pencil Drawing.

MATERIALS.

For beginners we recommend complete Box No. 2376, price 35c.; for more advanced students Siberian Hexagon Nos. 2361 to 2363; and for working on paper with a slight tooth Dixon's Sketching Pencil No. 2396. The latter is suitable for broad, effective work. One of the best courses a student can possibly take is to work from the plates contained in "Lessons in Pencil Drawing From Nature," by W. N. Bartholomew, Parts 1, 2 and 3. There is, to our mind, no reason why the student who has the *slightest* aptitude for drawing should not be able to make a creditable drawing from nature after a careful study of this short and delightful course, as outlined by Mr. Bartholomew. We do not hesitate to say that we consider them worth their weight in gold.

PENCIL DRAWING—Continued.

INSTRUCTIONS IN THE ART OF PENCIL DRAWING.

Outline.—The student, having selected an easy subject, as a drawing or print of a face, or simple cottage, must, as a first step to making a good copy, get a correct outline. For this purpose the original, and the paper on which the copy is to be made, should be fastened to a drawing board, putting a couple of sheets of paper under the intended sketch, if the paper be thin; the board should be sloped considerably more than a writing desk, in order that it may be fairly opposite to the eye.

The table should be no higher than the elbows of the student; if the table be too high, the seat may be raised.

The body is to be kept upright and square, no bending or twisting whatsoever, the left arm lying close to the side, and the hand resting near the edge of the table; if the right hand rest on the paper, it should be quite lightly on the tip of the little finger; have a piece of paper under it to keep the drawing clean. Attention to these directions insures not only a graceful and healthy position, but also allows of that freedom which is necessary to success.

The pencil must be held longer than a pen; for sketching, it may be held very long and loosely, by which means, and the arm being at perfect freedom to move in every direction, a free steady outline can alone be attained; this, for most purposes, is also the best way to hold the porte crayon or brush; when any part of a drawing requires great precision, the hold may be shorter and more firm. The sketch or outline had better be done with a rather soft pencil, in light lines, removing errors with Indian rubber or crumb of bread.

When the sketch is correctly made, the lines are to be marked more firmly with a middling hard pencil, an H., HB. or F.

The following rules are to be attended to in making an outline:

Sketch with a soft material, and light steady lines.

In commencing your sketch, fix upon some important point in the original, consider how far from the top and the sides that point is, and touch a light dot on your paper as nearly as you can guess, in a corresponding place; compare the selected point and your dot with each other, and rectify any error. Proceed in this way until you think you have your dot in its proper place; then, and not till then, measure, with care, the distance of the point from the top and the side, and so determine whether you are right or not. This plan must be constantly followed, as by it alone can the eye be cultivated to accuracy.

The principal lines and larger masses are to be sketched first; until these are in their proper places, the student should not attend to the minuter parts.

When the original is intricate (and, of course, it is likely there will be much rubbing out of errors, by which the surface of the paper would be frayed and injured), it is a good plan to make the sketch on common paper, and transfer it to that on which the drawing is to be completed.

The sketch may be transferred thus: Rub the back of the sketch with a soft pencil, taking care that there is a strong tint behind the lines. Lay the sketch thus prepared, with its face upwards, over the drawing paper, and trace over the lines with a hard point (as a pencil, a pointed piece of hard wood or ivory), the pressure will mark the outline on the drawing paper; go over this trace carefully with pencil, and then, with a few light whisks of a soft cloth, sweep off any loose dust that may have come from the back of the sketch. Should the cloth not remove all the soils, take some crumb of bread, about two days old and perfectly free from butter, a few rubs of which will completely cleanse the drawing.

The student is recommended to make the copies exactly the same size as the originals, until the power is acquired of sketching correctly without much difficulty; afterwards it will be well to practice copying in different sizes, as by this means the eye will be improved in the knowledge of proportion, and the student prepared for studying from nature; besides, it is often an advantage to be able to make a copy of any required size.

Paper.—For black lead-pencil drawings a smooth paper answers best. Thin Bristol board is generally preferred for very neat highly-finished drawings; hot-pressed drawing paper answers very well for general purposes; and good "Detail" for beginners and common uses.

Both landscapes and figures are often executed on a tinted drawing paper, called crayon paper; drawings on such paper can be executed in less time and with a richer effect than when white paper is used. The lights are put in with white chalk or Chinese White.

PENCIL DRAWING—Continued.

INSTRUCTIONS IN THE ART OF PENCIL DRAWING—Continued.

Shading by Lines, or "Handling."—By the term "handling" is meant the management of lines in shading.

Objects of different characters require different modes of handling. Those about to be explained are adopted by the most eminent artist of the present day. To understand them a careful study of engravings, lithographs, but more especially good drawings, is necessary; without such an investigation mere words will be of little use. The student will please remember that the sloped lines of shading can be done with ease when inclining from right to left, but are difficult to execute when inclined in the opposite direction; and any lines which in the plate or drawing on stone were done from right to left, will be reversed in the prints.

Shading Landscapes, Buildings, Etc.—The part representing the blue of the sky is to be shaded by horizontal lines flowing into each other, so that no joining be perceptible; and it may here be observed, that when an even shade is required, and the extent is too great for each line composing it to be executed at once, then the shade is done by lines of a convenient length, their terminations being brought to fine points, and the next portion begun with fine points and overlapping the preceding portions, they will join with the first ones without the junction being perceptible. This mode of uniting lines is of general use, especially in figure drawing. The pencil is to be lifted off the paper at each line.

Flat tints of trees are represented by horizontal lines short and blunt, keeping the pencil on the paper while several are being done. The modes by which the peculiar characters of different trees are imitated, termed "touch," can be acquired only from a good master or good examples.

Clouds are shaded with curved lines, and if crossed, they are to be by lines at acute angles with the others.

Walls are shaded by perpendicular lines; so are columns and other upright objects, as posts, masts of ships, and the like.

If the wall or other object be smooth, and the lines composing the shade too long to be done at once, each line is to be done in portions, which must overlap each other so that the junctions be not perceptible; but if the object be rough, short blunt lines are best.

Mountains are shaded by lines corresponding in inclination with the slopes of the mountains; so are rocks, or any other objects, the inclinations of which are evident.

Distant mountains, of which the tints are smooth, are shaded by fine lines without perceptible joinings; nearer mountains, and rocks that appear rugged, are represented by short blunt lines, varying in their inclinations with the various slopes of the mountains, and by their different degrees of coarseness and bluntness imitating the variety of ruggedness in the natural objects.

Ceilings and other horizontal objects are represented by horizontal lines.

Thus it is seen that for all objects having a decided and visible direction, the shading must agree with it, but when there is no decided direction, the shading is done by horizontal lines.

Figures.—The handling of drawings of the human figure is different from landscapes, because figures are very different objects from those which constitute landscape scenery. Figures are bounded by curves—the flesh, the hair, even the folds of the drapery, partake more or less of the curved character; curved lines are therefore best for representing them. Examine a good drawing, engraving or lithograph of the human figure—almost every line of it will be found to be curved.

The sweep of the lines should correspond pretty closely with the curvature of the original, and, like a large even shade in landscape, when each line is too long to be done at once, the termination of each portion of it must be fine and the next overlap, so that the whole may look like one uninterrupted line. The direction of the lines used in shading the hair must be the same as it appears to have in nature, and in shading it when it curls, as the sweep of the curves cannot always be done at one touch, but, on the contrary, two or three separate touches may be required, each touch or part must begin and end fine, so that it may unite with its corresponding portion without any apparent joining. The necessity for executing a line in portions, and uniting these portions so that no junction shall appear, is of constant occurrence.

In order to get a shadow sufficiently deep, mellow, and rich, it is necessary to cross the lines; the crossing is to be at an acute angle, so as to form narrow lozenge-shaped interstices. Crossing at right angles is very seldom proper—it may be used when a shadow is not sufficiently clear-looking; in that case, a judicious crossing at right angles will improve it very much.

PENCIL DRAWING—Continued.

INSTRUCTIONS IN THE ART OF PENCIL DRAWING—Continued.

In all shadings representing rounded objects, the ends of the lines should be fine and towards the light; for if the sides lay so, it would be much more difficult to produce the effect of roundness. Hence, although in the deeper parts of a shadow the lines may lie in whatever direction it may suit the hand to execute, yet where the shade becomes tender, the lines must have the direction that will run their ends towards the light.

The moderate fullness of the cheek is to be imitated by lines slightly curved. The greater convexity of the fingers requires that the lines should have considerable roundness.

The above rules for shading flesh apply also to drapery. Rounded folds must be shaded by rounded lines, straight folds by straight ones.

In shading flesh and drapery a sharp termination to the shadow is sometimes required—for instance, about the eyes, the wings of the nose, the nostrils, and the nails, as well as the sharp folds of thin drapery; in such cases the edges of the lines must lie to the light.

A knowledge of perspective would assist the student in determining the degree of curvature proper for lines, and also the direction their convexity should have.

When a drawing that has been done entirely in lines looks poor and raw, it may be improved by rubbing the shadows gently with the tip of the finger or a stump; of course, it will lose in clearness, which may be remedied by touching over the lines with care to restore their sharpness.

On crayon paper the lights are put in with white chalk, the handling being regulated in the same way as has been directed for the shadows; the lights may be mellowed with a stump, a piece of soft calico, or the tip of the finger.

The background of figure drawings, when it consists of a shadow merely, is shaded with diagonal lines from right to left; these are almost always crossed, and the crossing lines lie at acute angles to the others; each line, when long, is done in portious overlapping each other, so as to have no perceptible joinings.

It will be observed that, by the rules laid down for shading both landscapes and figures, the visible direction of an object is to be imitated by lines of corresponding direction; the rule which directs that the final lines of the shadows must, when next the light, have their ends towards it, may seem an exception, but it is not so; the direction is still to be followed, only choosing that by which the shadow can be best imitated. By attending to this one rule of imitating the apparent direction, the student can be scarcely ever at a loss to know how any subject should be shaded.

The lights of drawings on crayon paper, especially landscapes, are often put in with Chinese White diluted with water. Some practice is necessary in order to use it properly: in landscapes it is done in washes with a brush; in figure it is best to handle it in with a pen, laying the lines clear and steady.

Etching on Linen and Other Fabrics.

MATERIALS.

Etching on linen or other fabric is simply pen and ink drawing, cloth being substituted for paper. The materials with which the work is executed are the same, unless the piece is to be washed, in which case indelible ink is used in place of India. While there are many indelible inks on the market, we recommend Whiting's (see page 130).

A selection of pens suitable for this work will be found listed on page 132.

SPECIAL DIRECTIONS.

1. *The Mordant* must be prepared and used as follows: Place the contents of the envelope in an ounce bottle; fill with hot water and shake till dissolved. Apply very freely to the cloth as soon as convenient after mixing, and within a day or two at most. When dry smooth with an iron only moderately hot.

ETCHING ON LINEN, ETC.—Continued.

SPECIAL DIRECTIONS—Continued.

2. The Cloth must be free from all dressing, and should be saturated with the mordant. When dry, smooth with a moderately hot iron. Articles may be mordanted, and laid aside to decorate later.

3. Shake the Ink before using. Do not press on the pen, but keep the ink on the surface to avoid its spreading. A little experience and observation will soon enable one to judge how freely the different colors may be used.

4. If a "Solid Effect" is wanted, it must always be obtained by light cross-hatching and parallel lines.

5. The Finished Sketch must be allowed an hour to dry; then lay it in a basin of hot water, face up. In a moment or two press it lightly below the surface, so that the surplus ink may float off. Then take it by the corners and move it about in the water, to free it entirely from the mordant and all excess of color. After rinsing thoroughly let the cloth become very nearly dry before ironing it.

6. Beautiful Results are obtained by making sketches with the indelible "Etching Ink," or the "Outline Ink," and, after they have been sunned, washed and ironed, applying the mordant and colors as directed above. Old and imperfect etchings are thus readily rejuvenated and improved beyond recognition.

7. Remember: The colored inks, mordant, pens, brush, etc., must be used entirely "separate and distinct" from the etching ink and preparation, the outline ink, pens, etc.

8. Also: That the colored inks are not intended for ordinary "marking," nor for use on articles consigned to "the common wash," but for purely decorative purposes.

Explanatory.—Item 8 on this page means that though the colored inks are indelible, they are less suitable than the black ink for "marking" articles constantly and carelessly washed. They are intended, rather, for "color sketching on linen" and for decorating shams, panels, screens, tidies, etc., where the washing is infrequent and may receive personal attention.

Green, violet and blue are the strongest of the colors.

The colored inks may be used without the mordant on silk, and for coloring photographs and other pictures.

2094 Extra Packets of Color Mordant.....each, \$0 10



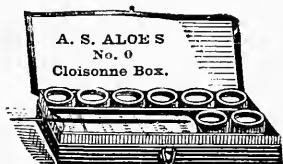
CLOISONNE ART POTTERY.

A new and beautiful decorative art which has been a great success in Europe. Earthenware pottery, for decoration with enamel colors in relief, on lines engraved in the body of the ware. This art is truly beautiful. The effects are refined and the shapes artistic, and it possesses one great advantage over the majority of the decorative branches, namely: that the beginner can secure all the necessary materials and a sample of the ware to decorate for a nominal sum—\$1.30. It recommends itself to lovers of artistic bric-a-brac generally, and certainly is within the reach of all.

MATERIALS.

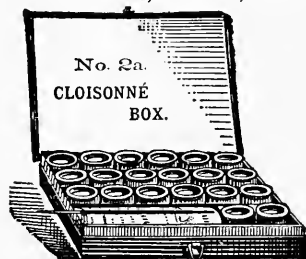
COMPLETE OUTFITS.

Papier-Mache Boxes, Cloth Covered.

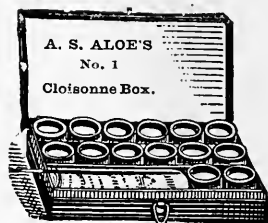


No. 2095.

- 2096** Contains 14 cans No. O size, assorted colors, brushes, directions, etc.....Price, \$2 00



No. 2097.



No. 2096.

- 2097** Contains 20 cans No. O size, assorted colors, brushes, directions, etc.....Price, \$2 75

CLOISONNE ENAMEL.

Separate Colors.

2098

Per can, 10c.; per dozen, \$1.20.

No.	No.	No.
1. White.	18. Mignonette.	35. Lemon Yellow.
2. Ivory.	19. Sea Green.	36. Indian Yellow.
3. Cream.	20. Light Green.	37. Orange Yellow.
4. Silver Grey.	21. Grass Green.	38. Yellow Ochre.
5. Pigeon Grey.	22. Emerald Green.	39. Gold Ochre.
6. Mouse Grey.	23. Myrtle Green.	40. Dark Ochre.
7. Slate Grey.	24. Olive Green.	41. Cerulean Blue.
8. Black.	25. Apricot.	42. Turquoise Blue.
9. Salmon.	26. Buff.	43. Light Blue.
10. Light Rose.	27. Brown.	44. Sapphire Blue.
11. Dark Rose.	28. Purple Brown.	45. Bottle Blue.
12. Vermilion.	29. Maroon.	49. Carmine.
13. Garnet Red.	30. Stone Grey.	75. Cloisonne Lacquer.
14. Lilac.	31. Terra Cotta.	76. Thinning Medium.
15. Violet.	32. Pompeian Red.	77. Bronze Tincture.
16. Crimson.	33. Straw Yellow.	
17. Pale Blue.	34. Canary Yellow.	

CLOISONNE ART POTTERY—Continued.

BRONZES.

			Per can.	Per doz.
2099	No. 46.	Cloisnone Liquid Gold Bronze	\$0 15	\$1 75
	No. 47.	Cloisnone " Silver "	15	1 75
	No. 48.	Cloisnone " Copper "	15	1 75



No. 2100.



No. 2101.



No. 2102.

2100	Photo Frame, 7 $\frac{1}{4}$ x9	Each.	\$1 10
2101	Vase, 19 inches high		6 00
2102	Placque, 10 $\frac{3}{4}$ inches		1 10

POTTERY FOR DECORATION.

PLACQUES.

Artistic Designs.

	Each.
2103 3 $\frac{1}{2}$ -inch	\$0 08
4 " "	10
5 " "	20
5 $\frac{1}{2}$ " "	25
6 " "	30
7 " "	40
8 " "	50
9 " "	80
10 " "	1 10
12 " "	1 60
15 " "	2 80
17 " "	3 75

ROSE JAR.

10-inch	2 75
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PLATTER.

6x11	75
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VASES.

Artistic Designs.

	Each.
3 $\frac{1}{4}$ -inch	\$0 30
4 " "	40
6 " "	70
8 " "	85
9 " "	1 30
10 " "	1 90
12 " "	2 25
15 " "	3 50
16 " "	5 00

CANDLESTICKS.

6-inch	75
--------	----

BASKETS.

5x6 $\frac{1}{2}$	45
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MATCH STAND.

3 $\frac{1}{4}$ x4 $\frac{1}{4}$	35
----------------------------------	----

FRAMES.

5 $\frac{1}{2}$ x7 $\frac{1}{2}$	65
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The above is only a small portion of the sizes and designs we carry in stock. We are in a position to furnish almost any shape or size our customers may desire.

CLOISONNE ART POTTERY—Continued.

BRUSHES.

The brush best adapted to this class of work is No. 1242, page 52.

INSTRUCTIONS.

Preparation of Articles.—Dust them well, and when perfectly clean give a slight coating of Cloisonne-Lacquer, to prevent the enamel from soaking into the porous pottery.

Outlining.—The Cloisonne-Lacquer will dry in a few minutes, and it will then be found advisable to begin by outlining the design in bronze. We have prepared a Cloisonne Gold, Silver or Copper Bronze, mixed with a suitable chemical, which will not act detrimentally on our enamel. (Unreliable tinctures, such as are frequently offered to the public, generally cause oxidation of the bronzes.)

Coloring.—As soon as the bronze is dry the painting of the design follows. Care must be taken that all parts are equally covered with the enamel, and that the brush is always kept clean. After the whole design has been carefully painted, put the article aside, but keep it free from dust. The painting will dry in a few hours with a fine brilliant surface, and needs neither firing nor varnishing. It will harden so thoroughly, that even hot water can be used for cleaning.

Choice of Colors.—For the ground-color we recommend the lighter shades, of which the following are most suitable: White No. 1, Ivory No. 2, Cream No. 3, Pigeon Grey No. 5, Salmon No. 9, Light Rose No. 10, Lilac No. 14, Violet No. 15, Pale Blue No. 17, Sea Green No. 19, Light Green No. 20, Apricot No. 25, Stone Grey No. 30, Straw No. 33, Cerulean No. 41, Turquoise Blue No. 42.

The ornamental parts of the work are best executed in medium shades, such as: Dark Rose No. 11, Vermilion No. 12, Crimson No. 16, Mignonette No. 18, Grass Green No. 21, Emerald Green No. 22, Olive Green No. 24, Buff No. 26, Brown No. 27, Terra Cotta No. 31, Canary No. 34, Lemon No. 35, Indian Yellow No. 36, Yellow Ochre No. 38, Light Blue No. 43, Carmine No. 49.

The edges and outside lines will show up best by using: Black No. 8, Slate Grey No. 7, Garnet Red No. 13, Myrtle Green No. 23, Purple Brown No. 28, Maroon No. 29, Dark Ochre No. 40, Sapphire Blue No. 44, Bottle Blue No. 45, etc.

This new style of painting is so simple, however, that any one possessing taste, and some idea of color combination, will be able to make a suitable selection of his own.

For Cleansing Brushes use turpentine.

Our Cloisonne Enamels are offered for sale in the well-known tins, which have found such great favor among the public. The enamel is ready for immediate use, and the opening of the tin can be effected by using any small coin as a lever. The lid will be found useful as a saucer to pour the color in. Before opening be careful to shake the color well; and should it be found desirable to have the enamel in a more liquid form, mix it with our specially prepared Cloisonne Thinning Medium, which preserves the brilliancy of the enamel. The use of turpentine lessens the brightness of the color.

The Cloisonne Enamel can also be used for painting and decorating any kind of wooden knick-knacks, metal, glass, leather, wicker-work; for walls, furniture, house and kitchen utensils.

Great Heat (over boiling point) is injurious to the enamel.

BRONZE, METALLIC AND LUSTRE PAINTING AND DECORATION.

MATERIALS.

NOTE.—The market is fairly flooded with worthless gold paints, and we caution the dealer and consumer alike against buying this class of goods of any except reputable manufacturers, as a large number of the gold paints offered the trade will turn black almost instantly and are dear at any price. The line that we carry is of the highest standard, and we *guarantee* the quality.

“ IDEAL ” FRENCH GOLD PAINT.

In Tin Box. Brush and Instructions Inclosed.



This is a very superior ready mixed gold paint, put up in artistic metal boxes.

2104 Each.....\$0 50 Per dozen.....\$6 00

“ IDEAL ” FRENCH GOLD PAINT—Small.

In Tin Box. Brush and Instructions Inclosed.

2105 Each.....\$0 25 Per dozen.....\$3 00

“ IDEAL ” FRENCH GOLD PAINT—Extra Small.

With Brush and Instructions. Without Box.

2106 Each.....\$0 15 Per dozen.....\$1 80

BRONZE, METALLIC AND LUSTRE PAINTING—Continued.

J. MARSCHING & CO.'S INDIA GOLD PAINT.

Ready Mixed.



No. 2107.

The above cut is an exact fac-simile of the India Gold Paint Box. In polished wood box with brush and directions.

2107 Each.....\$0 25 Per dozen.....\$3 00

NOTE.—Marsching's India Gold Paint has been favorably known to the trade for so many years that special mention upon our part is uncalled for.

READY MIXED GOLD PAINTS.

For What Used.—For all kinds of artistic and decorative gilding and painting, frescoing and ceiling decoration, household ornaments, church fixtures, picture frames, fancy baskets and every variety of wood work, ornamental candles and millinery articles, albums, stationery and paper work, gilded dancing shoes and leather work, theatrical properties, and for every possible kind of gilding work.

Ready mixed gold paint is prepared in a liquid form, and available for immediate use.

It is applied with the greatest facility, and the above lines when dry will be found to show the *real gold color*, which is wanting in inferior mixed paints.

The quality will not deteriorate, the color, in fact, gaining more richness and brilliancy in course of time.

Directions for Using.—Shake the bottle until the contents are thoroughly mixed, and apply evenly (not too thick) with the accompanying brush.

BRONZE, METALLIC AND LUSTRE PAINTING—Continued.

JAPANESE GOLD PAINT.

Ready Mixed.



No. 2108.

2108	In polished wood box, with Brush and Directions.....	Each.	Per doz.
		\$0 25	\$3 00

IMPERIAL GOLD ENAMEL.

Gold and Liquid Separate.



IMPERIAL Gold Enamel

FOR ALL ORNAMENTAL AND
DECORATIVE GILDING.

CAN BE WASHED WITH SOAP AND WATER.

No. 2109.

Suitable for Out-door Work.

2109	Box containing one bottle Superior Gold Powder and a bottle of Liquid, Each. with Brush and Directions.....	Each.	Per doz.
		\$0 30	\$3 60

BRONZE, METALLIC AND LUSTRE PAINTING—Continued.



No. 2110.

U. S. GOLD PAINT.

Brouze and Liquid Separate.



No. 2111.

MARSCHING'S FRENCH GOLD PAINT.

Bronze and Liquid Separate.

For all Ornamental Gilding and Decorative Purposes.

MANUFACTURER'S NOTICE. — The success with which this excellent article has met has caused various cheap imitations to be offered, some of them unscrupulously put up so as to resemble very closely in outward appearance the boxes and labels of the standard article. Special attention is therefore called to the labels on Marsching's French Gold Paint, exact fac-simile of which is herewith submitted.

2110 Box containing one bottle of Gold Powder and a bottle of Liquid, with Brush and Mixing Saucer..... Each, \$0 35
Per dozen..... 4 20

2111 Box contains one bottle of Powder and one bottle of Mixing Liquid, Each. Per doz.
with Directions \$0 30 \$3 60

BRONZE, METALLIC AND LUSTRE PAINTING—Continued.

“ECLIPSE” FRENCH GOLD PAINT.



No. 2112.

- 2112** Box containing one bottle of Powder and one bottle of Mixing Liquid, Each. Per doz.
with Directions \$0 25 \$3 00

BRONZE POWDERS.

For Decorating Wood, Iron, Plaster, Leather, Paper Fabrics of all kinds, etc., etc.

All Colors and Qualities. In One-Ounce Papers. Put up in Boxes of
Sixteen One-Ounce Packages.

Supplied in the following shades:

Antique Green	Light Green	Light Blue	Rich Gold
Brown	Fawn	Lemon Gold	Silver
Carmine	Fire	Maroon	Seal Blue
Copper	Flesh	Orange Gold	Vermilion
Crimson	Green Gold	Pale Gold	
Dark Green	Dark Blue	Blue	

	Per ounce package	Per pound.
2113 No. 6000, in any of the above shades.....	\$0 20	\$1 80
2114 French Gold Leaf Bronze (hand-made).....	35	5 00
2114a French Gold Bronze.....	30	3 75
2114b The finest Gold Bronze made.....	60	7 50
2114c Aluminum Bronze—finest made.....	50	6 00

NOTE.—We urge the dealer and consumer to handle and use nothing except No. 6000 Bronze Powder. We can supply the inferior grades, Nos. 500, 1000, 2000, 3000 and 4000, but it is poor economy to attempt their use. We enjoy an enormous trade in Bronzes, Metallics and Gold Paint, and we attribute this patronage to the fact that we handle only high-class goods, which we supply at phenomenally low prices.

GOLD LIQUID OR BRONZING MEDIUM.

For Mixing and Applying Bronze Powder.

	Each.	Per doz.
2115 1-oz. bottles.....	\$0 10	\$1 20
2116 2-oz. “.....	15	1 80
2117 Gold Liquid.....	Per pint, 75	
2118 Gold “.....	Per gallon, can extra, 3 00	

Directions.—Mix the powder and liquid to about the consistency of cream or thin paint, and apply evenly (not too thick) with camel hair brush. Don't mix more than you intend to use at one time.

BRONZE, METALLIC AND LUSTRE PAINTING—Continued.

SUPERIOR METALLIC BRONZE WATER COLORS.

Mixed With Water Same as Ordinary Water Colors.



No. 2133.

For all kinds of decorative art, painting on paper, ivory, wood, iron, silk, satin, plush and other fabrics. Suitable for decorating birthday, Easter, menu and progressive euchre cards, fancy panels, dancing programs, etc.

2133 Box containing 10 Colors, and Brush, complete..... Per box, \$1 00

SEPARATE COLORS.

	Per pot.		Per pot.
2134 Fire	\$0 10	Pale Gold	\$0 10
Crimson	10	Rich Gold	10
Silver	10	Lemon	10
Patent Green	10	Orange	10
Patent Blue	10	Copper	10

INSTRUCTIONS IN THE ART OF LUSTRE PAINTING.

Lustre painting for decorative purposes is so generally known that we feel a few words only are necessary on the subject. Lustre painting refers to the art of painting in colors that are lustrous or luminous. Such colors are known to the trade as bronzes and metallics. The former is a fine powder, the latter is coarse or flaky. To the above we might properly add "Diamond" Dust, or "Frosting," as it is often introduced where a pure white effect is desired. These colors may be freely mixed and blended, as in oil or water color painting. The bronzes are generally mixed with the medium and applied as paint. The metallics are usually dusted on a coat of medium, and as the latter closely resembles varnish the small particles stick to and completely cover the surface.

We do not list these materials in sets or outfits, as the time has past when people care to pay fancy prices for boxes and labels, and we find that the majority prefer to select their own colors.

Almost any material is suitable for decoration in lustre painting, as the colors work equally well upon silk, wood, iron, plush, felt, satin, velvet, paper, etc. If the surface upon which you intend to paint is pliable, it must be mounted upon a stretcher or board, as described in our article on Tapestry Painting (page 192). The outline of the design is also secured, in the manner there explained. The strokes should be long and effective.

Use bristle brushes in painting on plush, velvet or felt, and soft hair brushes for more delicate fabrics or smooth surfaces. The bronzes should be mixed on a palette, and if the medium should become too thick, it can be cut with a few drops of turpentine.

Wax Flower Materials.

This is a branch of decoration which of late years has dropped almost entirely out of sight, and there seems no just reason why it should ever be revived. We, however, still receive a limited inquiry from remote quarters for the necessary materials, and will continue to carry the line to meet this desultory demand. Dealers and others are at liberty to order from the catalogue of any dealer they may have at hand. Simply mention name of dealer from whose catalogue you order, and give number of page on which article is found. As we have the catalogues of all prominent artists' material dealers in this country on file, your order will be promptly and satisfactorily filled.

Paper Decoration.

DENNISON'S "39 MILL" IMPORTED TISSUE PAPER.

$\frac{1}{4}$ reams of one color at ream prices.

Not less than one quire of any one color sold at quire price.

Sample book of Tissue Paper, showing every shade, sent on application.

2136	No.	Ream	Quire.	Sheet.		No.	Ream.	Quire.	Sheet.
SEA GREEN, Light.....	AG-1	5.50	.30	.02	DELICATE PINK, Light ..	48	3.75	.20	.01
Medium.....	AG-3	7.25	.40	.03	ROSE PINK, Ex. Light.....	48½	3.75	.20	.01
WHITE.....	B1	3.75	.20	.01	Light.....	48X	3.75	.20	.01
BLUE GREEN, Light.....	BG-1	4.75	.25	.02	Medium.....	48X	3.75	.20	.01
Deep.....	BG-3	6.75	.35	.03	VERMILION.....	53XXX	14.50	.90	.06
YELLOW WHITE.....	D2	3.75	.20	.01	SCARLET, Ex. Light.....	52½	12.50	.80	.03
TEA ROSE.....	T4	3.50	.20	.01	Light.....	53A	14.50	.90	.06
White.....	BC1st	3.75	.20	.01	Medium.....	53B	17.50	1.10	.08
White.....	BC3d	3.25	.20	.01	Deep.....	53C	17.50	1.10	.08
VIRGIN WHITE.....	GB	2.60	.15	.01	RED, Light.....	55	7.25	.40	.03
NILE GREEN, Light.....	0	3.75	.20	.01	Medium.....	55A	9.50	.60	.05
Extra Light.....	00	3.75	.20	.01	Deep.....	55B	11.50	.80	.05
TURQUOISE GREEN, Light	8	4.25	.25	.02	PURPLE, Ex. Deep.....	62	7.00	.35	.03
Medium.....	8A	4.75	.30	.02	Medium.....	62A	4.25	.25	.02
Deep.....	8-B	5.75	.30	.02	Extra Light.....	63	4.25	.25	.02
OLIVE GREEN, Ex. Light...	9-A	4.75	.25	.02	LAVENDER BLUE.....	65	4.75	.30	.02
Light.....	9-B	4.75	.25	.02	PURPLE BLUE.....	66	7.25	.40	.03
Medium.....	9-C	4.75	.25	.02	PURPLE, Deep.....	68A	5.25	.30	.02
Deep.....	9-D	4.75	.25	.02	Deeper.....	68B	6.25	.35	.03
WARM GREEN, Ex. Light...	10	3.75	.20	.01	YELLOW BROWN, Light...	70X	4.25	.25	.02
Light.....	11	3.75	.20	.01	Medium.....	70	3.75	.25	.02
Medium.....	12	3.75	.20	.01	VANDYKE BROWN, Light...	75	4.25	.25	.02
Deep.....	13	3.75	.20	.01	Medium.....	77	4.75	.25	.02
Deeper.....	14	4.00	.25	.02	Deep.....	79	5.25	.30	.02
Extra Deep.....	15	4.00	.25	.02	SHELL PINK, Light.....	81	3.75	.20	.01
EMERALD GREEN, Ex. Light	9X	4.25	.25	.02	Extra Light.....	85	4.00	.25	.02
Light.....	11X	4.25	.25	.02	Medium.....	86	3.75	.20	.01
Medium.....	13X	4.75	.25	.02	Deep.....	86A	4.00	.25	.02
Deep.....	15X	5.25	.30	.02	Deeper.....	87X	3.75	.25	.02
Extra Deep.....	16X	5.25	.30	.02	PURPLE PINK, Deep.....	89	4.25	.25	.02
BOTTLE GREEN.....	18	4.25	.25	.02	Medium.....	89B	4.25	.25	.02
EMERALD GREEN, Deep...	18X	5.75	.30	.02	YELLOW, Ex. Pale.....	90X	3.50	.20	.01
YELLOW GREEN, Light.....	017	3.75	.20	.01	CHROME ORANGE, Ex. Light	94	3.75	.20	.01
Medium.....	019	4.00	.25	.02	Deep.....	95A	5.25	.30	.02
Deep.....	19C	4.75	.25	.02	Extra Deep.....	96C	6.25	.35	.03
CANARY YELLOW, Medium	20	3.75	.20	.01	Intense.....	96D	7.25	.40	.03
Light.....	20A	3.75	.20	.01	Light.....	96E	3.75	.25	.02
Extra Light.....	20X	3.75	.20	.01	Medium.....	96X	4.25	.25	.02
Deep.....	21	3.75	.20	.01	CHROME YELLOW, Medium	98	4.25	.25	.02
Extra Deep.....	22	4.25	.25	.02	BLACK.....	100	4.75	.25	.02
Intense.....	22C	5.25	.30	.02	JET BLACK.....	101	5.25	.30	.02
SKY BLUE, Ex. Light.....	30	3.50	.20	.01	LIGHT SNUFF.....	112	3.75	.20	.01
Light.....	30X	3.75	.20	.01	GREEN BLUE, Deep.....	118	7.25	.40	.03
Medium.....	31	3.75	.20	.01	PURPLE, Ex. Light.....	120	3.75	.20	.01
Deep.....	32	3.75	.20	.01	Light.....	123	4.25	.25	.02
Ex. Deep.....	35	4.25	.25	.02	Medium.....	124	4.75	.25	.02
CERULEAN BLUE, Light...	36	4.00	.25	.02	Deep.....	126B	7.75	.40	.03
Medium.....	36A	4.50	.25	.02	INDIGO BLUE.....	130	4.25	.25	.02
INTENSE BLUE, Medium...	36F	5.25	.30	.02	PURE PINK, Light.....	145	5.00	.30	.02
Deep.....	36G	5.75	.35	.03	Medium.....	146	5.25	.30	.02
ULTRAMARINE BLUE.....	39	4.50	.25	.02	Deep.....	147	6.75	.40	.03
DELICATE PINK, Medium...	40	4.25	.25	.02	CARMINE.....	150	10.50	.70	.05
CRIMSON PINK, Ex. Light...	40X	3.75	.20	.01	MAROON.....	151	6.00	.30	.02
Light.....	41	4.75	.25	.02	Deep.....	152	7.75	.40	.03
Medium.....	41X	4.25	.25	.02	SCARLET, Deep.....	155	12.50	.90	.06
Deep.....	42	4.75	.25	.02	LIGHT RED BROWN.....	172	6.75	.35	.03
Deeper.....	45	7.25	.40	.03	TRUE BLUE, Medium...	180	6.75	.35	.03
Extra Deep.....	45C	12.50	.75	.06	BLUE GREEN, Medium...	190	6.75	.35	.03
Intense.....	45E	15.50	1.00	.08	CRIMSON, Light.....	240	7.75	.40	.03
DELICATE PINK, Ex. Light	47	3.75	.20	.01	Deeper.....	240A	9.50	.60	.05

		Each.	Per doz.
2130	Green Cotton Covered, on spools.....	\$0 05	\$0 60
	Green “ “ in coils.....	05	60
	White “ “ on spools.....	05	60
	White “ “ in coils.....	05	60
	Green Silk “ on spools.....	10	1 20
	Green “ “ in coils.....	10	1 20
	Hair Wire, plain, on spools.....	05	60
	Annealed Wire, plain, “.....	05	60
	Tinned Wire, bright, “.....	05	60
	Cut Wire for Stems, plain, 9 inches long.....Per doz., \$0 05		Per gross, \$0 40
	Cut Wire for Stems, green cotton covered, 6 inches long, “.....03		“ 30

PAPER DECORATION—Continued.

DENNISON'S MATERIAL FOR PAPER FLOWERS—Continued.

RUBBER TUBING FOR STEMS.

2141	Large, No. 3	Per yard, \$0 04	Per 100 yards, \$5 00
	Small, No. 1R	" 03	" " 4 00
	Moss Rose Stems	" 05	" " 5 00

CULOTS, OR SEED CUPS.

2142	In envelopes containing 1 dozen	Per env., \$0 05	Per 100 envs., \$5 00
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CUT SPRAYS, OR CALYX.

2143	For backs of roses, made of fine green muslin, in envelopes containing 1 dozen:		
	Per envelope	\$0 08	Per 100 envelopes.....\$7 00

MOSS.

2144	Natural, for moss roses, in envs. of 1 doz. sprays	Per env., \$0 05	Per 100 envs., \$5 00
	In bundles, dark	Per bundle, 20	Per doz..... 2 00

PETALS.

Cut Ready for Use.

2145	Yellow Daisy, in envelopes containing 1 doz	Per env., \$0 05	Per 100 envs., \$5 00
	White " " " " " "	" 05	" " 5 00
	Violet, 1 doz. violet petals and centers	Per box, 10	Per doz..... 1 00

LEAVES.

2146 Rose Leaves, single and *in tige* (*i. e.*, 3 leaves on a stem), assorted sizes:

	Per doz.	Per gross.
Style No. 1, finest quality, <i>in tige</i>	\$0 50	\$6 00
Style " 2, fine " "	33	4 00
Style " 7, " " "	33	4 00
Style " 3, medium " "	25	3 00
Style " 4, " " single leaves	10	1 00
Style " 8, " " in clusters of 3 leaves	15	1 50
Geranium, white edged	15	1 50
Geranium, plain	10	1 00
Ivy Leaves	10	1 00
Fuchsia Leaves	10	1 00
Daisy "	10	1 00
Poppy "	10	1 00
Pond Lily "	10	1 00
Snow Ball "	10	1 00
Violet "	10	1 00
Autumn "	20	2 00
Hydrangea	10	1 00
Chrysanthemum	10	1 00
Pink Calyx, with stems and leaves	25	3 00
Smilax, muslin	Per yard,	30

PINCHERS.

2147	Steel, for flower makers' use	Each, \$0 25	Per doz., \$3 00
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PAPER DECORATION—Continued.

DENNISON'S MATERIAL FOR PAPER FLOWERS—Continued.

FLOWER CENTERS.

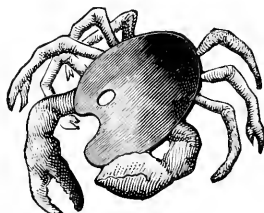
	Per doz.	Per gross.
2148 Poppy, part natural.....	\$0 25	\$3 00
Rose.....	25	3 00
Daisy, large, yellow, hard	05	50
Daisy, " " or brown, soft.....	05	40
Fuchsia Centers.....	20	2 00
Calla Lily "	60	.....
Poppy Buds.....	25	3 00
Pond Lily Stamens.....	05	.....
Violet "	03	.....
Pink Centers.....	20	.....

VINES.

- 2149** In yard lengths of the following leaves: Holly, plain; holly, with berries; autumn; geranium, white edge; snow ball, spotted; snow ball, red and green; vine shaded green; ivy, plain; ivy, with berries; ivy veined, 3 sizes; ivy veined, large size only; ivy shaded green.....Per yard, \$0 30
- 2150** Book of instructions, containing 78 pages profusely illustrated, entitled "Art and Decoration in Tissue Paper," with full directions for making all kinds of decorative articles and paper flowers, mailed free to our customers on application.

WIRE LAMPSHADE FRAMES.

	Each.		Each.		Each.
No. 2, Square, 12-inch	\$0 50	No. 3, Six Corner, 15-inch.	\$0 50	No. 4, Wave, 15-inch.....	\$0 50
No. 2, " 15 "	50	No. 3, " 18 "	60	No. 4, " 18 "	60
No. 2, " 18 "	60	No. 3, " 22 "	65	No. 4, " 22 "	65



DRAWING.

Drawing Papers in Sheets.

WHATMAN'S DRAWING PAPERS.

EXPLANATION OF SURFACES.

"H. P." signifies "Hot Pressed," and has a smooth surface. Most used for pen and pencil drawing.

"N." signifies "Not Hot Pressed" or "Cold Pressed," and has a finely-grained surface. Mostly used for pencil drawing and water color painting and crayon drawing.

"R." signifies "Rough," and has a coarsely-grained surface. Used for bold water color painting.

In ordering, mention surface desired.

		Size.	Per sheet.	Per doz.	Per quire.
2151	Cap, H. P. and N	13x17.....	\$0 04	\$ 0 40	\$ 0 65
2152	Demy, H. P. and N	15x20.....	05	60	1 00
2153	Medium, H. P. and N	17x22.....	08	85	1 35
2154	Royal, H. P., N. and R	19x24.....	10	1 00	1 75
2155	Super-Royal, H. P. and N	19x27.....	12	1 30	2 25
2156	Imperial, 72 lbs. per ream, H. P., N. and R.....	22x30.....	14	1 50	2 75
2157	Atlas, H. P. and N.....	26x34.....	20	2 25	4 25
2158	Double Elephant, H. P., N. and R	26x40.....	25	3 00	5 00
2159	Antiquarian, H. P. and N	31x52.....	1 25	13 50	24 00

Special prices in ream lots.

For Whatman's Papers Mounted on Muslin, see Mounted Roll Drawing Papers.

WHATMAN'S EXTRA HEAVY DRAWING PAPERS.

		Select.	Size.	Per sheet.	Per doz.	Per quire.
2160	Imperial, 90 lbs. per ream, H. P., N. and R		22x30.....	\$0 20	\$2 30	\$4 25
2161	Imperial, 140 " " " H. P., N. and R		22x30.....	30	3 50	6 50
2162	Imperial, 300 " " " N		22x30.....	80		
2163	Double Elephant, 260 lbs. per ream, N		26x40.....	75		

NOTE.—Whatman's papers are the finest in the world for water color, pen and ink and pencil work. The most salable sizes and weights in the above list are Nos. 2156 and 2161.

HARDING'S WATER COLOR PAPER.

Medium Rough, Good Tooth.

2164	Size, 22x30, extra heavy, 105 lbs. to ream.....	Per sheet, \$0 25	Per quire, \$6 00
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This paper has a creamy tone, washes well and is a satisfactory paper in every respect.

"RELIABLE."

A good German paper for ordinary drawing and sketching, will stand erasing, has a slightly grained surface and is suitable for crayon, pencil or ink work. In sheets.

		Size.	Per sheet.	Per quire.
2165	Cap.....	14x17.....	\$0 02	\$0 30
	Demy.....	16x21.....	03	45
	Medium.....	17x22.....	04	65
	Royal.....	19x24.....	05	80
	Super-Royal.....	19x27.....	08	90
	Imperial.....	21x30.....	10	1 20
	Double Elephant.....	27x40.....	15	2 25

DRAWING—Continued.**“AMERICAN” SHEET DRAWING PAPER.**

A Good Article at a Moderate Price.

	Per quire.		Per quire.
2166 14x17	\$0 20	19x27	\$0 60
16x21	30	20x28	65
17x22	45	22x30	80
18x23	50	27x40	1 50
19x24	55		

Not sold in less than quire lots.

STEINBACH'S PAPER.

See page 163.

TINTED CRAYON PAPERS.

See page 163.

PASTEL PAPERS.

See page 174.

CHARCOAL PAPERS.

See page 164.

SUPERIOR TRANSFER PAPERS.

Also called “Impression Paper” and “Carbon Paper.”

Blue, Black, Green, Red, Yellow, Purple and White.

2167 11x19 inches.....	Per sheet, \$0 05	Per doz., \$0 40
19x22 “	10	“ 75

Transfer paper is used for transferring designs, drawings, patterns, etc. If the material on which you intend to work is dark, you select a light transfer paper, and if your markings are to be made on a light surface, you use black or some dark colored transfer paper. The transfer paper is placed face down on the surface upon which you intend to make the outline, and the pattern firmly secured over it. You then trace the lines with a hard point or pencil, and when removed the lines will be found reproduced in the color of the transfer paper used.

FINEST IMPORTED GELATINE.

Used for Transferring and also for Decorative Purposes.

	Per sheet.
2168 Medium thick, 16x23	\$0 25
2169 Thick, 16x23	35

BLOTTING PAPER.

	Per sheet.	Per quire.
2170 White, thin	\$0 05	\$1 00
2171 White, thick	08	1 50
2172 Colored, thick, Pink, Blue, Yellow.....	08	1 50

WHITE MOUNTING BOARDS.

	Size.	Per sheet.	Per doz.
2173 3 sheets, white.....	22x28.....	\$0 08	\$0 70
2174 4 “ “	22x28.....	10	80
2175 6 “ “	22x28.....	12	90
2176 8 “ “	22x28.....	15	1 00

DRAWING—Continued.**BRISTOL BOARDS.****REYNOLD'S WHITE BRISTOL BOARD—Smooth Surface.**

For Pen and Ink and Pencil Drawing.

			2-ply.		3-ply.		4-ply.	
			Per sheet.	Per doz.	Per sheet.	Per doz.	Per sheet.	Per doz.
2177	Cap	12 $\frac{1}{2}$ x15 $\frac{1}{4}$ -inch	\$0 06	\$0 60	\$0 08	\$0 85	\$0 10	\$1 15
2178	Demy	14 $\frac{3}{8}$ x18 $\frac{1}{4}$ "	08	85	12	1 30	16	1 70
2179	Medium	16 $\frac{1}{2}$ x20 $\frac{3}{4}$ "	12	1 20	16	1 75	22	2 35
2180	Royal	18 $\frac{1}{4}$ x22 $\frac{3}{8}$ "	15	1 50	22	2 25	30	3 00
2181	Imperial	21 $\frac{1}{2}$ x28 $\frac{3}{4}$ "					60	6 00

PATENT OFFICE BRISTOL BOARD—Plain.

		Per doz.	Per gross.
2182	10x15-inch	\$0 60	\$6 50

PATENT OFFICE BRISTOL BOARD—Printed with Border, Etc.

		Per doz.	Per gross.
2183	10x15-inch	\$0 85	\$8 65

SUPERFINE COLD-PRESSED BRISTOL BOARD.

		Each.	Per doz.
2184	Size, 16x20, 3 ply	\$0 55	\$6 00

This is the best material made for water color painting when there is much detail. The board has a delicate artistic tooth.

HEAVY SHACREEN MAT OR WATER COLOR BOARDS.

These boards are made in four different tints and three textures, Rough, Egg-shell and Torchon Surface.

		Light Blue.	Light Grey.	White.	Buff.
2185	Rough	No. 15	No. 16	No. 17	No. 18
2186	Egg-shell	No. 20	No. 21	No. 22	No. 23
2187	Torchon Surface	No. 24	No. 25	No. 26	No. 27
			Size, In. 22x34	Size, In. 26x38	Size, In. 30x40
	X or Thick, in either above tints and surface,	Per sheet,	\$0 25	\$0 30	\$0 35
	XX or Double, " " " " "	"	35	40	45
	XXX or Treble, " " " " "	"	50	55	60

This is the very best material of which mats can be made. The Torchon Surface is the most desirable, and the popular thickness is XX.

ALOE'S WATER COLOR TABLETS.

Extra Thick. Faced with Whatman's Rough Paper.

Very Desirable for Water Color Painting.

		Each.		Each.
2188	Size, 5x7	\$0 12	Size, 11x14	\$0 30
	Size, 7x10	18	Size, 14x20	60

ALOE'S NOVELTY BOARD.

For Mats and Decorative Purposes. Beautiful Tints. Rough Surface.

		Each.	Per doz.
2189	Size, 22x28, Pink, Blue, Cream white	\$0 15	\$1 50

WOOD PULP BOARDS.

			Per bundle of 20 sheets,
2190	No. 20. 26x38		\$2 50
2191	No. 25. 26x38		2 50

DRAWING—Continued.

Roll Drawing Papers.

“IDEAL” DETAIL PAPER.

This paper has a pinkish tint which is very agreeable to the eye, is extremely tough and will not break in folding, and stands erasing perfectly. The best detail paper in the market.

MEDIUM.

		36-in.	42-in.	48-in.
2192	Per roll, 10 yards.....	\$1 10	\$1 25	\$1 50
2193	Per “ 50 “	3 00	3 25	3 50
2194	Per “ 100 “	5 00	5 50	6 00

HEAVY.

		36-in.	42-in.	48-in.
2195	Per roll, 10 yards.....	\$1 15	\$1 35	\$1 75
2196	Per “ 50 “	3 25	3 50	4 00
2197	Per “ 100 “	5 50	6 00	7 00

“APOLLO” DETAIL PAPER.

Made especially for us by the best mill and expert manufacturers in draughting paper. Especial attention has been paid to the erasing qualities. It has a slightly grained surface; it will take India ink and pencil well. We can recommend it as a considerable improvement over the ordinary manilla papers.

In Rolls of about 100 pounds, 12c. per pound.

LIGHT.

		36-in.	42-in.	48-in.	54-in.
2198	Per roll, 10 yards.....	\$0 75	\$1 00	\$1 20	\$1 50
2199	Per “ 50 “	2 50	2 75	3 00	3 50
2200	Per “ 100 “	4 00	4 50	5 00	6 00

MEDIUM.

		36-in.	42-in.	48-in.	54-in.
2201	Per roll, 10 yards.....	\$1 00	\$1 15	\$1 40	\$1 75
2202	Per “ 50 “	2 75	3 00	3 25	4 00
2203	Per “ 100 “	4 50	5 00	5 50	7 00

HEAVY.

		36-in.	42-in.	48-in.	54-in.
2204	Per roll, 10 yards.....	\$1 10	\$1 30	\$1 65	\$2 00
2205	Per “ 50 “	3 00	3 25	3 50	4 50
2206	Per “ 100 “	5 00	5 50	6 00	8 00

Full Rolls only sold at pound price. Send for samples.

“APLEX” DRAWING PAPER.

A superior paper to that formerly listed as Duplex. Is the finest paper in the market for preliminary and general drawings and sketching. It will stand erasing perfectly, and take ink, pencil and water color well. Unlike other papers of similar kind, it will not break in folding. Its cream tint is agreeable to the eye, and will admit of much handling without soiling. In rolls of about 35-40 pounds.

2207	Full Rolls, 36 and 54 inches wide.....	Per pound, \$0 25
2207a	Full “ 42 inches wide.....	“ 28
2208	Per Roll, 50 yards.....	36-in. 42-in. 54 in. \$5 50 \$7 50 \$9 25
2209	Per “ 25 “	3 00 4 00 5 00
2210	Per “ 10 “	1 25 1 65 2 00
2211	Per Yard.....	15 20 25

DRAWING—Continued.

"PERFECTION" TRANSPARENT DRAWING AND SKETCHING PAPER.

This paper is specially made for sketching, transferring, etc. It is a white paper, sufficiently transparent to be used as a tracing paper for detail drawings. It is strong and tough, stands erasing by rubber and knife, and takes pencil, ink and color well. On account of its exceedingly low price, it will be to a great extent a welcome substitute for the manilla papers now used for drawing.

2213 36 inches wide, 100 yard rolls.....Per roll, \$6 00

"RELIABLE."

A superior paper to that formerly listed as Universal. An almost pure white paper of good quality, with slightly grained surface, suitable for work in ink, color, pencil or crayon. It is used for general office work, preliminary drawings, and to a great extent for school purposes. Similar paper, generally offered under the name of "German Drawing Paper," cannot be confounded with our "Reliable."

	50-yard rolls.	25-yard.	10-yard.	Per yard.
2215 36 inches wide.....	\$ 6 50	\$3 50	\$1 50	\$0 20
2216 42 " ".....	7 50	4 00	1 75	25
2217 54 " ".....	10 00	5 25	2 75	30
In Rolls, about 30 pounds to roll.....				Per pound, 35

"ANCHOR."

A very tough and pliable paper of a yellowish white hue, matchless for working drawings used out-of-doors or in the workshop, where drawings are under continuous rough handling. This paper has a slightly grained surface similar to Whatman's; it stands erasing to the greatest extent.

	50-yard rolls.	25-yard.	10-yard.	Per yard.
2219 36 inches wide.....	\$ 9 00	\$4 50	\$2 00	\$0 25
2220 42 " ".....	10 50	5 50	2 50	30
2221 62 " ".....	15 00	8 50	3 75	40
In Rolls, 36, 42, 62 inches wide.....				Per pound, 40

Full Rolls only sold at pound price.

"POLYGON" DRAWING PAPER.

A superior paper to that formerly listed as Paragon. It has all the high qualities of the paper we formerly carried, but is made of better material and has a superior finish; great care has been taken to make the Polygon paper the best roll drawing paper in the market. We guarantee it in every particular. This paper has stood every test to which it has been subjected, proving unsurpassed for general work. The color is white, the surface is the regularly pebbled, or egg-shell surface, and is equally adapted to general drawing in lines, wash or in water colors. It is extremely strong, tearing with difficulty, and standing erasing perfectly.

	50-yard rolls.	25-yard.	10-yard.	Per yard.
2223 36-inch wide, medium rough.....	\$13 50	\$ 7 00	\$2 85	\$0 33
2224 42 " ".....	15 00	8 00	3 25	36
2225 58 " ".....	19 00	10 00	4 20	47
2226 58 " medium smooth.....	19 00	10 00	4 20	47
2227 58 " thick smooth.....	24 00	12 75	5 40	65
2228 58 " thick rough.....	24 00	12 75	5 40	65
In rolls, 36, 42, 58-inch wide.....				Per pound, 45

"SUPER-SUPER."

Of English manufacture, smooth surface. This paper is what its name implies, and is made especially for us, and we consider it one of the finest papers that has ever been imported. Its surface cannot be surpassed for fine map, elevation or exhibition drawing. We know of nothing better.

	25-yard rolls.	10-yard.	Per yard.
2229 42-inch wide.....	\$10 25	\$4 50	\$0 50
2230 54 " ".....	11 00	5 50	60
In rolls, 42, 58-inch wide.....			Per pound, 50

DRAWING—Continued.

"NORMANDIE" CONTINUOUS WHITE ROLL PAPER.

		10-yard rolls.	Per yard.
2231	72-inch wide.....	\$10 00	\$1 25
	In rolls, 72-inch wide.....		Per pound, 60

"STEINBACH" PAPER FOR SOLAR PRINTS, ETC.

		Per yard
2232	54-inch wide, medium, in rolls of 10, 20, 50 and 100 yards	\$0 34
2233	54 " heavy, " 10, 20, 50 and 100 yards	50

SHEET PAPERS MOUNTED ON MUSLIN.

Mounted sheet paper can be furnished with the muslin standing over on all sides of paper or trimmed to exact size of sheets, as desired. Please specify in ordering.

"Whatman's." Drawing Paper, Mounted.

		Per sheet.
2234	Royal 18x24-inch	\$0 38
2235	Imperial 22x30 "	45
2236	Double Elephant 27x40 "	70
2237	Antiquarian 31x53 "	1 80

"Polygon." As described on page 246, No. 2223. Mounted, rough or smooth.

		Per sheet.
2238	Royal 18x24-inch	\$0 32
2239	Imperial 22x30 "	40
2240	Double Elephant 27x40 "	60
2241	Antiquarian 31x53 "	1 10

ROLL DRAWING PAPERS MOUNTED ON MUSLIN.

In Rolls of 10 or 20 Yards.

2242 "Reliable." As described under No. 2215, page 6.

In Rolls, 10 Yards. 36, 42, 54 Inches Wide.

		36-in.	42-in.	54-in.
Per roll		\$6 50	\$7 25	\$10 25
Per yard		50	90	1 20

2243 "Anchor." As described under No. 2219, page 6.

In Rolls, 10 Yards. 36, 42, 62 Inches Wide.

		36-in.	42-in.	62-in.
Per roll		\$7 00	\$8 25	\$13 00
Per yard		90	1 00	1 60

2244 "Polygon." As described under No. 2223, page 7.

In Rolls, 10 Yards. 36, 42, 58 Inches Wide.

		36-in.	42-in.	58-in.
Per roll		\$7 75	\$8 75	\$11 75
Per yard		1 00	1 10	1 40

2245 "Polygon." Medium smooth.

In Rolls, 10 Yards. 58 Inches Wide.

Per roll		\$11 75
Per yard		1 40

2246 "Polygon." Thick, smooth and rough surface.

In Rolls, 10 Yards. 58 Inches Wide.

Per roll		\$13 00
Per yard		1 60

DRAWING—Continued.

ROLL DRAWING PAPERS MOUNTED ON MUSLIN—Continued.

2247 "Super-Super." Smooth paper. A very superior article. Described under No. 2229, page 7.

In Rolls, 10 Yards. 41, 53 Inches Wide.

	41-in.	53-in.
Per roll	\$9 00	\$12 00
Per yard	1 10	1 40

2248 "Normandie." Medium rough. Described under No. 2231.

In Rolls, 10 Yards. 72 Inches Wide.

Per roll	\$20 00
Per yard	2 55

2249 Paper Cloth. Smooth. An article made of muslin, to which the paper pulp is applied. It is pliable and very strong, takes pencil and ink well and stands erasing to a serviceable extent.

In Rolls, 20 Yards. 38 Inches Wide.

Per roll	\$9 00
Per yard	50

TRACING CLOTH OR LINEN.

"Imperial" Tracing Cloth or Vellum. This cloth has superseded all others as the best quality of tracing cloth made. We import this direct from the makers. One side glazed, the other dull.

In Rolls of 24 Yards. 18, 21, 30, 36, 42 and 54 Inches Wide.

	Per roll.	Per yard.		Per roll.	Per yard.
2250 18-inch	\$4 00	\$0 20	36-inch	\$ 7 60	\$0 40
21 "	5 50	25	42 "	10 50	50
30 "	6 90	35	54 "	15 00	75

TRACING PAPER.

In Rolls and Sheets.

"Leather" Tracing Paper. This article was introduced by us for the purpose of making original drawings on, from which blue prints can be taken direct. It will stand erasing and considerable rough handling, and is very transparent for tracing.

2251 Medium, 20 yards, 39 inches wide	\$3 75
2252 Medium, 10 " 39 " "	2 00
2253 Heavy, 20 " 39 " "	4 00
2254 Heavy, 10 " 39 " "	2 25

"Columbia" Tracing Paper. A good, strong paper.

2255 20 yards to roll, 43 inches wide	\$2 00
--	--------

"Argus" Tracing Paper. Buff color. Cheap for details.

2256 100-yard rolls, 48 inches wide	\$3 25
2257 In full rolls, about 75 pounds	Per pound, 18

"Imperial" Tracing Paper. Very fine. Will not discolor.

2258 Medium weight, per roll of 20 yards, 39 inches wide	\$3 75
2259 Heavy, " 20 " 39 " "	4 50

This paper has a bluish tint, like tracing cloth, is transparent and tough, and will take ink without shrinking.

DRAWING—Continued.**TRACING PAPER—Continued.**

"Alta" Tracing Paper. Unglazed. The best for detail or full-size tracings.

2262	In rolls, 54 inches wide, 44 yards.....	\$5 00
2261	In rolls, 54 " 22 "	2 75

"Vegetable." Very tough and transparent. The finest tracing paper made. It is a pure vegetable paper of fine, hard surface, silky appearance and finish.

In Sheets Only.

		Per sheet.	Per quire.
2262	Cap, 13x17 inches.....	\$0 05	\$ 0 90
2263	Demy, 16x20 inches.....	07	1 20
2264	Royal, 19x24 inches.....	10	2 00
2265	Imperial, 22x28 inches.....	15	2 50
2266	Double Elephant, 28x42 inches.....	50	10 00

"Leather." Medium. Same as No. 2251.

		Per sheet.	Per quire.
2267	20x30 inches.....	\$0 15	\$2 50
2268	30x40 "	20	4 00

"Germania." Ordinary quality.

		Per sheet.	Per quire.
2269	20x30 inches.....	\$0 05	\$1 00
2270	30x40 "	10	2 00

BLUE PRINT PAPERS.

Specialty Made for the Heliographic or Blue Process. Unprepared.

Aloe's Satino Helio is without doubt the best paper for blue process that has ever been introduced. It is made in France specially for us, of linen stock, and chemically pure. It has a perfect satin finish and takes the chemicals without absorption, and is a superior article to Blue Print Paper, formerly listed as Acme Helio or Helios.

ALOE'S SATINO PAPER—Mailing Weight.

Mailing Blue Process Paper. The toughest light-weight paper for mailing, folding or carrying in the pocket, or for use in shops. In rolls.

2271	24 inches wide, 50-yard roll	\$2 75
2272	30 " 50 "	3 50
2273	36 " 50 "	4 00
2274	42 " 50 "	4 50

ALOE'S SATINO PAPER—Medium Weight.

2275	24 inches wide, 50-yard roll	\$3 00
2276	27 " 50 "	3 50
2277	30 " 50 "	4 00
2278	36 " 50 "	4 50
2279	42 " 50 "	5 00
2280	54 " 50 "	6 50

ALOE'S SATINO PAPER—Heavy Weight.

2281	27 inches wide, 50-yard roll.....	\$ 4 50
2282	30 " 50 "	5 25
2283	36 " 50 "	6 00
2284	42 " 50 "	7 50
2285	54 " 50 "	10 00

DRAWING—Continued.**ALOE'S PARCHMENT SATINO—Heavy Weight.**

Very Tough and Strong.

2286	24 inches wide, 50-yard roll	\$5 00
2287	30 " 50 "	6 00
2288	36 " 50 "	7 00
2289	42 " 50 "	8 00

BLUE PRINT CLOTH.

"*Linaura*," or Blue Print Cloth or Fabric. A material of great value for use out-of-doors, in the rain, on buildings, or as permanent records; will make as good a print as paper, and is invaluable on account of its strength and great durability

UNPREPARED.

2289a	30 inches wide, 10-yard roll	\$3 25
2290	36 " 10 "	3 50
2291	42 " 10 "	4 25

PREPARED.

2292	30 inches wide, 10-yard roll	\$4 00
2293	36 " 10 "	4 25
2294	42 " 10 "	5 25

Samples of our blue print paper on application. Blue prints of any size made to order at short notice.

Our facilities for making blue prints are superior to any in America, at prices beyond competition.

Send us your tracings; we will guarantee satisfaction.

ALOE'S SATINO BLUE PROCESS PAPER.

Prepared Ready for Use.

We especially recommend our Satino Prepared Blue Print Paper, and will replace any of the same that proves unsatisfactory.

ALOE'S SATINO—Mailing.

		Width, 24-in.	27-in.	30-in.	36-in.	42-in.
2295	Prepared.....Per roll of 10 yards,	\$1 25	\$1 35	\$1 50	\$1 75	\$2 00
2296	Prepared.....Per 50 "	5 50	6 00	6 50	7 50	9 00

ALOE'S SATINO—Medium Weight.

		Width, 24-in.	27-in.	30-in.	36-in.	42-in.
2297	Prepared.....Per roll of 10 yards,	\$1 25	\$1 50	\$1 75	\$2 00	\$ 2 25
2298	Prepared.....Per 50 "	5 50	6 50	7 50	8 50	10 00

ALOE'S SATINO—Heavy Weight.

		Width, 24-in.	27-in.	30-in.	36-in.	42-in.
2299	Prepared.....Per roll of 10 yards,	\$1 50	\$1 75	\$2 00	\$ 2 25	\$ 2 50
2300	Prepared.....Per 50 "	6 50	7 50	8 50	10 00	11 00

ALOE'S PARCHMENT SATINO.

		Width, 24-in.	27-in.	30-in.	36-in.	42-in.
2301	Prepared.....Per roll of 10 yards,	\$1 75	\$2 00	\$ 2 25	\$ 2 50	\$ 3 00
2302	Prepared.....Per 50 "	7 50	8 50	10 00	11 00	13 00

Through a more general introduction of blue printing, certain uses for it have been developed which make it desirable to have a cheaper, and yet good, paper than our Satino. We refer to prints for distribution, advertisements, etc. In order to meet this demand we are now offering another grade of paper; although not nearly so good as our Satino, is still equal to the majority of blue print papers now on the market.

DRAWING—Continued.**CLIMAX BLUE PRINT PAPER.**

			Width, 27-in.	30-in.	36-in.	42-in.
2303	Prepared.....	Per roll of 10 yards,	\$1 00	\$1 20	\$1 40	\$1 75
2304	Prepared.....	Per " 50 "	4 50	5 50	6 25	7 50

PERFECTION BLACK PROCESS PAPER.

Black Lines on White Ground.

Entirely New Process. Water Bath Only. Used the Same as Blue Print Paper.

We desire to call your attention to our "Perfection" Direct Black Process Paper, which fills a long-felt want. This paper is the only one made that requires no developing bath, as in other papers of this kind, and is used precisely as Blue Print Paper. The results obtained from this paper are better than any other, and the "Perfection" Black Print Paper never becomes brittle, before or after printing, as other Black Print Papers do. The lines will come out more distinct, and even the finest mark or shade will show on the print with a wonderful distinctness.

PREPARED "PERFECTION" BLACK PRINT PAPER.

			Per roll.
2305	In rolls of 10 yards, 30 inches wide.....		\$2 50
2306	In " 10 " 36 " "		3 00
2307	In " 10 " 42 " "		3 50

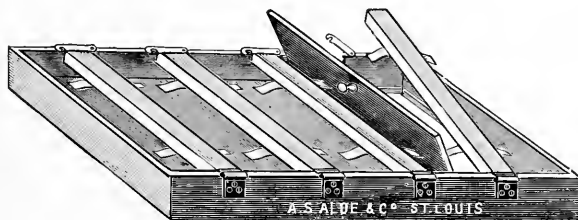
SYMPATHETIC ERASING FLUID.

Red, White or Orange.

		Per bottle.
2308	For making alterations and additions on Blue Prints.....	\$0 20

BLUE PRINT FRAMES.

Made of Hardwood with Brass Mountings and Cushion.



No. 2309.

		Frame only.	Polished Plate Glass.
2309	20x24-inch.....	\$ 6 75	\$10 75
2310	24x30 "	9 00	13 50
2311	28x36 "	11 00	18 00
2312	30x42 "	13 75	24 00
2313	36x60 "	22 00	45 00

ZINC BATH TRAYS.

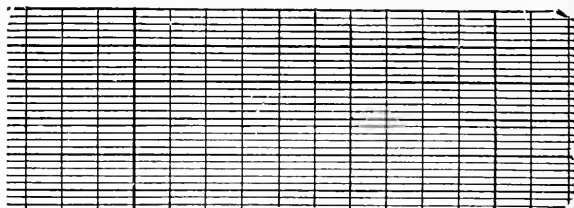
With Drain Pipe, Strong Rim and Wooden Braces.

		Each.
2314	20x24-inch	\$3 75
2315	24x30 "	4 50
2316	30x42 "	6 00
2317	36x60 "	8 00

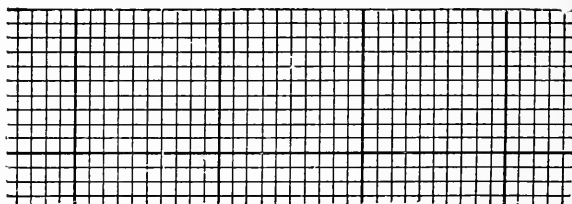
DRAWING—Continued.**“PERFECT.” PROFILE PAPER.**

Unmounted, in Rolls of 50 Yards. Mounted, in Rolls of 20 Yards.

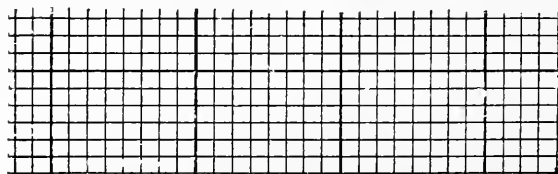
Transparent, in Rolls of 50 Yards.



2318	Perfect Profile Paper, plate A. 4x20 to 1-inch.	Per yard.
	Printed in Orange or Green, 22-inch wide, rolls of 50 yards	50 30
2319	Perfect Profile Paper, plate A.	
	Mounted on cloth, in rolls of 20 yards.....	75
2320	Perfect Transparent Profile Paper, plate A.	
	Printed on Orange only, in rolls of 50 yards.....	30
2021	Perfect Profile Paper, plate B. 4x30 to 1-inch.	
	Printed in Orange or Green, 22-inch wide, rolls of 50 yards	30
2322	Perfect Profile Paper, plate B.	
	Mounted on cloth, in rolls of 20 yards.....	75
2323	Perfect Transparent Profile Paper, plate B.	
	Printed in Orange only, in rolls of 50 yards.....	30

RULED CROSS-SECTION PAPER.

2324	In Sheets, 16x21-inch, blue ruling. 10x10 to 1-inch.....	Per quire.
		\$1 00



2325	In Sheets, 16x21-inch, blue ruling. 8x8 to 1-inch.....	Per quire.
		\$1 00
	In " 16x21 " " " 5x5 to 1-inch.....	1 00

DRAWING—Continued.

Drawing Books.

THE "SUPERIOR" SCHOOL DRAWING BOOK.

Interleaved with French Tissue Paper to Prevent Drawings from Blurring.

				Each.	Per doz.
2326	Size, $7\frac{3}{8} \times 10\frac{1}{4}$,	12 leaves, 24 pages.....		\$0 15	\$1 50
2327	Size, $7\frac{3}{8} \times 10\frac{1}{4}$,	24 " 48 "		30	3 00
2328	Size, $8\frac{1}{2} \times 11$,	24 " 48 "		35	3 60

This book has a durable flexible cover, and will stand considerable rough handling. Suitable for pen, pencil or water color.

FOSTER DRAWING BOOK.

A Good Book at a Reasonable Price. For Pencil Drawing.

2329	Size, $6\frac{3}{4} \times 8\frac{1}{2}$,	24 leaves, 48 pages.....	Each, \$0 10	Per doz., \$1 20
Used extensively in schools.				

THE "STUDENT'S" SKETCH BOOK.

Superior Quality of Paper. With Canvas Covers. Suitable for Pen, Pencil or Water Color.



No. 2330.

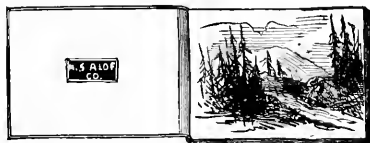
	Each.	Per doz.		Each.	Per doz.
2330 Size, 4 x7.....	\$0 30	\$3 00	Size, 8x10.....	\$0 55	\$6 50
Size, $5\frac{1}{4} \times 8$	35	3 50	Size, 9x11.....	70	8 25
Size, 6 x9.....	40	4 50	Size, 10x14.....	80	9 60

This is one of the best books made for the artist's use.

SKETCH BOOKS.—English Crayon.

Sketch Books Bound in Cloth, Leather Back, with Loop for Pencil.

Made of English Crayon Paper. Assorted Tints.



No. 2331.

	Each.		Each.
2331 Size, 4 x $5\frac{1}{2}$	\$0 35	Size, $6\frac{1}{2} \times 9\frac{1}{2}$	\$0 75
Size, $4\frac{1}{2} \times 6\frac{1}{2}$	45	Size, $7\frac{1}{2} \times 10\frac{1}{2}$	1 00
Size, $5\frac{1}{2} \times 7\frac{1}{2}$	50	Size, $10\frac{1}{2} \times 15$	1 50

SKETCH BOOKS WITH DESIGNS.

See Index.

DRAWING—Continued.

SKETCH BOOKS—Whatman's Paper.

Bound in Cloth, with Loop for Pencil.



No. 2332.

	Each.		Each.
2332 3½x5-inch	\$0 40	7x10-inch	\$1 15
4¼x5½ "	50	9x11½ "	1 35
5 x7 "	65	10x14 "	1 75
5½x9 "	90		

VERE FOSTER'S DRAWING COPY-BOOKS.

New Edition. With Instructions, Designs and Paper to Draw On.

Superior edition, in 70 numbers, paper covers.....Each, \$0 10

2333 FREE-HAND SERIES (20 Numbers).

- | | |
|---|--|
| <p>A1 Elementary — Easy Objects (Straight Lines).
 A2 Elementary — Simple Objects (Straight Lines).
 B1 Straight Line Objects (Flat).
 B2 Straight Line Objects (Perspective).
 C1 Curved Line Objects (Flat).
 C2 Curved Line Objects (Perspective).
 D1 Leaves from Nature—Simplest Forms.
 D2 Natural Foliage and Sprays.
 E1 Plants from Nature</p> | <p>E2 Simple Floral Forms.
 F1 Flowers from Nature.
 F2 Flowers and Fruit.
 G1 Ornamental Leaves.
 G2 Ornamental Foliage and Fruit.
 H1 Ornamental Objects (Simple).
 H2 Ornamental Objects (Advanced).
 I 1 Elementary Ornament.
 I 2 Floral Ornament, Pateras, etc.
 I 3 Anthemion and Ornamental Forms.
 I 4 Advanced Outline Ornament.</p> |
|---|--|

2334 LANDSCAPE SERIES (12 Numbers).

- | | |
|---|--|
| <p>J1 Trees—Oak, Fir, etc.
 J2 Trees—Beech, Elm, etc.
 J3 Trees—Ash, Chestnut, etc.
 J4 Trees—Larch, Lime, Willow, etc.
 K1 Landscape—Simple Sketching and Shading.
 K2 Landscape—Sketches Boldly Shaded.</p> | <p>K3 Landscape—Fully Shaded Drawings.
 K4 Landscape — Highly Finished Sketches, etc.
 L1 Rustic Figures. By E. Duncan, R. W. S
 M1 Marine Objects—Boats, etc.
 M2 Fishing Boats, Coasters, etc.
 M3 Yachts, Vessels, Studies of Water, etc.</p> |
|---|--|

2335 ANIMAL AND HUMAN FIGURES (16 Numbers).

- | | |
|--|---|
| <p>O Elementary Animal Drawing.
 O1 Quadrupeds and Birds.
 O2 Poultry, Various Breeds.
 O3 British Small Birds.
 O4 British Wild Animals.
 O5 Horses (Arab, Hunter, Dray, etc.).
 O6 Horses (Racer, Pony, Mule).
 O7 Dogs (Seventeen Species).</p> | <p>O 8 Cattle, Sheep, Pigs, Goats, etc.
 O 9 Cattle, Lambs, Ass, Foal, etc.
 O10 Foreign Wild Animals.
 O11 Cats and Kittens.
 Q 1 Human Figure—Elementary.
 Q 2 Human Figure in Outline.
 Q 3 Human Figure in Outline (Advanced).
 Q 4 Human Figure—Slightly Shaded.</p> |
|--|---|

DRAWING—Continued.**2336****GEOMETRICAL SERIES (12 Numbers).**

- R1** Practical Geometry—Simple Problems.
R2 Practical Geometry (Circle, Ellipse, etc.)
R3 Applied Geometry.
R4 Solid Geometry.
S1 Drawing to Scale—Simple Lessons.
S2 Drawing to Scale—More Advanced.

- S3** Drawing to Scale—Architectural.
S4 Drawing to Scale—Building Details.
T1 Mechanical (Initiatory Subjects).
T2 Details of Tools, etc.
T3 Working Drawings, Mechanics, etc.
T4 Details of Machines, etc.

2337**PERSPECTIVE, MODEL DRAWING, SHADING (10 Numbers).**

- U1** Perspective (Definitions, etc.).
U2 Perspective (Picture Plane, Ground Plane).
U3 Perspective (Circles, Pyramids, Objects).
U4 Perspective (Squares, Cylinders, Objects).

- V1** Model and Object Drawing (Simple).
V2 Model and Object Drawing (Advanced).
V3 Model and Object Drawing (Advanced).
V4 Model and Object Drawing (Advanced).

2338**W1 Shading—Models.****2339 W2 Shading—Ornament.****2340 Z Blank Exercise Book.**

It is not much more than a decade since Mr. Vere Foster commenced the publication of the present series of drawing books for the people. Encouraged by the great success of his Writing Copy-Books, he conceived the design of similarly teaching drawing by the means of Drawing Copy-Books. He secured the services of best artists of the day, and succeeded in producing, after some years' labor and great expense, a series of upwards of fifty books, embracing almost every kind of art-teaching. The result has far exceeded the utmost hopes of the projector of the series. Within ten years, upwards of two millions of books were sold. They were approved by the South Kensington Museum authorities of London, and have been adopted by all the leading school boards throughout Great Britain.

The large sale which these books enjoy enables the publishers to go to press very frequently, and they have thus special facilities for making important improvements on the series.

The quality of the paper and printing have been much improved. Instructions have been added to each book, which will be of service to the teacher, and will be found to meet in a very special way the wants of those who desire to study drawing without a teacher.

PRANC'S OUTLINE PORTFOLIOS FOR CHILDREN.

With Directions for Coloring.

2340a 12 subjects in each Portfolio, on water color paper Per set, \$0 25

Sketch Blocks.**SOLID SKETCH BLOCKS.**

First Quality German Drawing Paper. Unbound.

Suitable for Pen, Pencil or Water Color Work.

	Each.		Each.
2341 4½x 6	\$0 25	7x10	\$0 50
6 x 9	40	10x14	80
9 x12	60	12x18	1 00
5½x 7	30	14x20	1 50

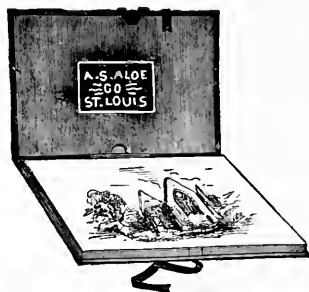
Second Quality.

	Each.		Each.
2342 5x 7	\$0 20	9x12	\$0 45
6x 9	25	10x14	60
7x10	30	14x20	1 00

DRAWING—Continued.

WHATMAN'S SOLID SKETCH BLOCKS.

Made of best quality Whatman's Drawing Paper, in three finishes, viz.: hot-pressed or smooth, cold-pressed with slight grain, and extra rough for water color painting. The paper is so compressed as to form a solid block; by running a knife around the edge each sheet can be easily separated.



No. 2344.

		2343		2344
		Unbound.	*Bound in Portfolio.	
	Size.			
16mo. Royal.	4 $\frac{1}{2}$ x 6	\$0 30		\$0 75
8vo. "	6 x 9	55		1 20
4to. "	9 x 12	90		1 75
Half "	12 x 18	1 75		3 00
32mo. Imperial.	3 $\frac{1}{2}$ x 5 $\frac{1}{2}$	30		65
16mo. "	5 $\frac{1}{2}$ x 7	40		90
8vo. "	7 x 10	75		1 50
4to. "	10 x 14 (the most salable size)	1 40		2 25
Half "	14 x 20	2 50		3 75

The dealer should carry the unbound only, as there is little call for the bound blocks.

* The binding has cloth sides and back, with a pocket and loop for pencil inside. The portfolio will last for a number of blocks.

WHATMAN'S SOLID SKETCH BLOCKS.

Made of Whatman's best Imperial Drawing Paper, extra heavy (140 pounds). Hot-pressed, cold-pressed and rough. Expressly for water color work.

	Size.	Each.
2345 16mo. Imperial	5 x 7	\$0 70
8vo. "	7 x 10	1 25
4to. "	10 x 14	2 50
Half "	14 x 20	4 50

"LA FRANC" PAD.

For Pencil.

	Each.	Per doz.
2346 White Paper, 100 leaves, size, 6x9	\$0 10	\$1 00
White " 225 " " 6x9	15	1 50

"LITTLE WOMEN" TABLETS.

For Pencil.

	Each.	Per doz.
2347 White, 90 leaves, size, 6x9	\$0 08	\$0 75
White, 190 " " 6x9	12	1 35

DRAWING—Continued.**SOLID CHARCOAL PAPER SKETCH BLOCKS.**

Fine Quality.

2328 9x12 inches Each, \$0 50 12x18 inches Each, \$0 85

Extra Fine Quality—Michalet Paper.

2329 9x12 inches Each, \$0 65 12x18 inches Each, \$1 00

PEN AND INK SKETCHING TABLETS.

"Wedding Cream." Smooth Finish.

		Each.	Per doz.
2350	Commercial size, 60 sheets	\$0 30	\$3 60
2351	Packet " 60 "	40	4 80
2352	Letter " 60 "	60	7 20

HOCARTH'S DRAWING TABLET.

Cover is printed on tinted board, extra heavy and strong. Paper is the best to be had for drawing, being a strong, clean manilla, with excellent fiber.

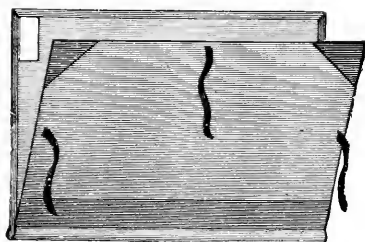
		Each.	Per doz.
2353	Tissue interleaves, size, 6 x 9 ¹ / ₂ , 15 sheets, permanently bound.....	\$0 08	\$0 75
2354	Tissue " " 9 ¹ / ₂ x12, 15 " " "	12	1 35

SOLID PASTEL BLOCKS.

See page 175.

PORTFOLIOS.

Leather Backs and Corners, Cloth Sides, Inside Flaps.



	Each.		Each.
2355 12x16 inches	\$1 50	19 x25 inches	\$2 50
14x18 "	1 75	22 x30 "	3 00
17x21 "	2 00	16 ¹ / ₂ x12 ¹ / ₂ " with flaps and clasps	2 50

Paper Sides, Cloth Back,

	Each.		Each.
2356 11x16 inches	\$0 75	19x25 inches	\$1 35
14x18 "	90	22x30 "	2 00
17x21 "	1 00		

ALOE'S SCHOOL PORTFOLIO.

Very Strong.

2357 Size, 18x24..... Each, \$0 90

DRAWING—Continued.

Lead Pencils.

A. W. FABER'S MAKE.—Imported.

	Each.	Per doz.	Per gross.
2358 Round, gilt, black polished, Nos. 1 to 4	\$0 05	\$0 60	\$ 7 20
2359 English, polygrades, round, silver stamped, natural polish, 11 grades, from 4B to 6H	05	60	7 20
2360 Hexagon, gilt, red polish, Nos. 1 to 5	08	85	9 90
2361 Siberian, hexagon, gilt, natural polish, BB to 6H	10	1 25	15 00
2362 Siberian, " " " " 3B and 4B	14	1 50	18 00
2363 Siberian, " " " " 6B	15	1 75	21 00
2364 Artists', hexagon, with movable leads, Nos. 1 to 5, large	20	2 10	
2365 Artists' Leads for above Nos. 1 to 5, 6 leads in box	35	3 90	
2366 Siberian, Artists', hexagon, gilt, natural polish, with movable leads, 2B-6H	25	3 00	
2367 Siberian, Artists', hexagon, gilt, natural polish, with movable leads, 6B	35	3 75	
2368 Siberian, Artists', hexagon, gilt, natural polish, with movable leads, 3B and 4B	35	3 75	
		Per doz.	Per doz.
		boxes.	boxes.
2369 Siberian, Artists', leads for above, 6 leads in a box, 2B to 6H	\$0 65	\$7 50	
2370 Siberian, " " " " " 3B to 4B	75	8 25	
2371 Siberian, " " " " " 6B	85	9 75	
2372 Siberian, " hexagon, gilt, natural polish, with movable leads, double, with two ends, for architects, F and HH	40	4 50	
2373 Siberian, Artists', hexagon, gilt, natural polish, with movable leads, double, with two ends, for draughtsmen, BB and HB	50	4 50	
2374 Faber's Crayon Leads, 6 in a box	25	2 00	
2375 Holders for same	35	4 20	

FABER'S PENCIL BOXES.

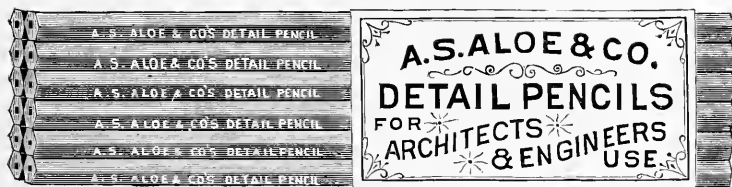


	Per box.	Per doz.
	boxes.	boxes.
2376 *With 4 pencils, round, gilt, paper boxes, Nos. 1 to 4	\$0 35	\$ 3 75
2377 With 5 " English, wooden boxes, H to 2B	60	6 75
2378 With 7 " " " " HH to 3B	75	8 10
2379 With 10 " " " " 4H to 4B	90	9 75
2380 With 5 " " " " with knife and rubber	1 00	12 37½
2381 With 5 " Siberian, hexagon, gilt, H to 2B	1 00	12 00
2382 With 7 " " " " 2H to 3B	1 25	15 00

* The best selling set in the market.

DRAWING—Continued.

DRAUGHTSMEN'S LEAD PENCILS.



No. 2383.

The Aloe Detail Pencils are particularly adapted for detail and general drawing. They are moderate in price, and, being hexagon in shape, will not roll off the drawing board.

2383 Aloe's Hexagon Detail Pencil.....Each, \$0 05 Per dozen, \$0 50

FINEST SIBERIAN LEAD PENCILS.

		Per doz.
2384	Johann Faber's, hexagon, Siberian Pencils, 6B to 6H.....	\$1 10
2386	Johann Faber's, hexagon, gilt, Nos. 1 to 5	65

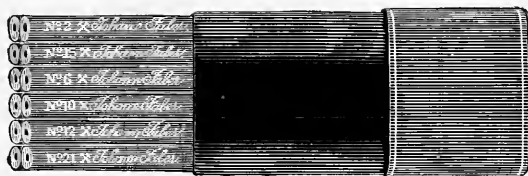
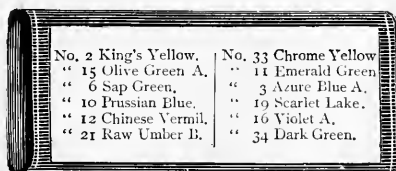


		Each.
2388	Artists' Pencil for Adjustable Leads, single point, Siberian	\$0 25
2389	Artists' " " " " " " Nos. 3 to 5.....	20
2390	Artists' " " " " " " double point, Siberian.....	35

FABER'S WAX CRAYONS, OR CRETA LAEVIS PENCILS.

In Pull-off Boxes.

For Coloring Drawings and Details.



No. 2391.

		Each.			Each.
2391	No. 6. Assorted colors.....	\$0 75		No. 24. Assorted colors.....	\$2 25
	No. 12 " "	1 25		No. 36. " "	3 25
	No. 18. " "	1 75		No. 48. " "	4 00

DRAWING—Continued.

ARTISTS' LEADS.

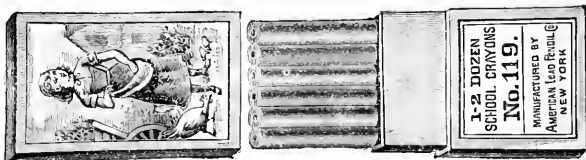


No. 2392.

2392	Leads for Artist Pencils, Siberian, 6 in box, 1H to 6 H.....	Per box.	\$0 60
2393	Leads " " " best, 6 in box, Nos. 2 to 5	30	

COLORED SCHOOL WAX CRAYONS.

For Coloring Maps, Pictures, Sketches, Etc.



No. 2394.

2394	School Crayons, in wood, color of polish shows color of crayon, 6 colors.....	Per box.	\$0 10	Per doz. boxes.	\$1 20
Every dealer should carry this box. It sells at sight, and is a capital article in every way.					

DIXON'S AMERICAN GRAPHITE ARTISTS' PENCILS.

Packed in handsome white-watered paper, gilt-trimmed boxes, with black and gold labels. One dozen in a box, three dozen in a carton.

These leads are extra fine and perfectly graded. The hard grades are perfect for artists, architects, draughtsmen and engineers, and the softer and medium grades are unequalled for art work. They are indorsed by members of the National Academy of Design, New York, designers, drawing teachers, mechanical engineers, and artists generally.

They are made in hexagon shape only, beautifully finished in the natural color of the cedar wood, and are in ten grades of leads, as follows, viz.:

Dixon's Grade Stamps.		Similar Grade to the European Stamp of
V V S—Very, very soft.....		(B B B B B)
V S—Very soft.....		(B B and No. 1)
S—Soft		(B)
S M—Soft medium		(H B and No. 2)
M B—Medium black		(F and No. 3)
M—Medium.....		(H)
M H—Medium hard		(H H and No. 1)
H—Hard.....		(H H H)
V H—Very hard.....		(H H H H)
V V H—Very, very hard.....		(H H H H H H H)
2395	Dixon's "Artists'" Hexagon Pencils.....	Each. Per doz.
		\$0 10 \$1 00



No. 2396.

We believe this crayon to be superior to anything in the market for like purposes. Its lead is tough and has a deep, rich, black color.

2396	Dixon's Sketching Crayon.....	Each.	\$0 10	Per doz.	\$1 00
2397	Dixon's Crayon Pencils.....	10		1 00	

DRAWING—Continued.

THE "IDEAL" PENCIL SHARPENER.

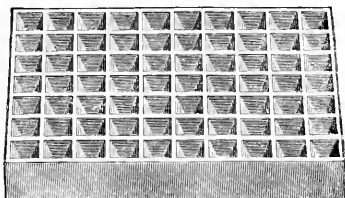


The most perfect pencil sharpener ever invented, giving a fine point without breaking the lead.

2398 "Ideal" Pencil Sharpener...Each, \$0 20



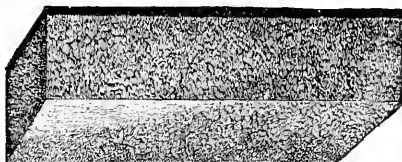
RUBBER AND PAPER CLEANER.



No. 2399.

2399 Red Moulded Rubber and Paper Cleaner, 2³/₈x1⁵/₈-inch \$0 25

SPONGE RUBBER FOR CLEANING DRAWINGS.



No. 2400.

2400 Sponge Rubber, 1¹/₂x2x1-inch... Per piece, \$0 35
2401 Sponge " 3 x2x1 " " 60

DAVIDSON'S PATENT VELVET RUBBER.



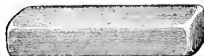
DAVIDSON RUBBER CO.
No. 2402.



DAVIDSON RUBBER CO.
No. 2403.



DAVIDSON RUBBER CO.
No. 2405.



DAVIDSON RUBBER CO.
No. 2404.

		Nos.	4	8	12	16	20
2402	Patent Velvet Rubber, flat.....	Each,	\$0 40	\$0 25	\$0 20	\$0 15	\$0 10
2403	Patent " " wedge shape.....	"	.....	25	20	15	10
2404	Patent " " oblong shape.....	"	.....	25	20	15	10
2405	Patent " Type-writer Eraser.....	"	.....	..	20	15	10
2406	Patent Architects' Rubber, flat.....	"	.....	.....	25	.....	15
2407	Patent " " oblong.....	"	.....	.....	25	.....	15

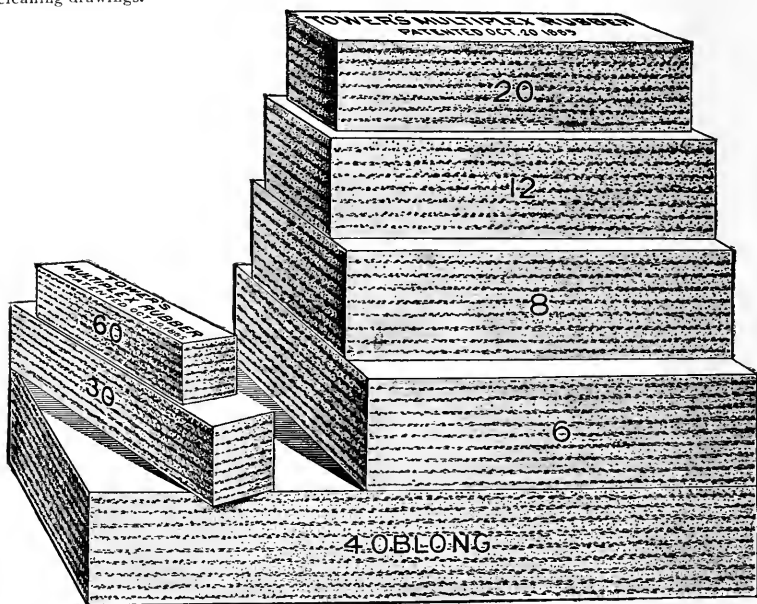
We have had frequent requests from architects, artists and draughtsmen to make an erasive rubber that would clean and erase the marks from, and not affect the peculiar surface of their paper, as the ordinary erasive rubber is liable to do. We have produced this Architect Rubber from a selected stock and confidently offer it for the purpose desired, while its durability will be found to be superior to anything ever offered.

DRAWING—Continued.

TOWERS' MULTIPLEX RUBBER ERASER.

A New Article That Removes Pencil Marks Without Smoothing.

A superior rubber for artists, architects and engineers, as it removes the pencil marks without affecting the surface, as is usual with most erasing rubbers. It is also an excellent rubber for cleaning drawings.



All Other Rubbers Do it This Way:

"Multiplex" Rubber Does it This Way:



These cuts show the construction and merits of the "Multiplex" rubber. Its porous nature, being full of air-holes, never allows it to harden like ordinary rubber, and makes it hug the paper and remove all pencil marks without smoothing.



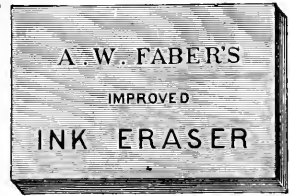
		Each.		Each.
2408	No. 4. Multiplex Rubber....	\$0 75	No. 12. Multiplex Rubber.....	\$0 25
	No. 6. " "	50	No. 20. " "	15
	No. 8. " "	40	No. 30. " "	10

DRAWING—Continued.

INK AND PENCIL ERASERS.



No. 2409.



No. 2412.

2409	A. W. Faber's Artists' Rubber	Per cake, \$0 10	\$0 15	\$0 20	\$0 25	\$0 50
2410	A. W. Faber's Black Rubber	Per cake,	20	25	50	
2411	A. W. Faber's Ink Eraser	Per cake,	05			
2412	A. W. Faber's " large	"	10			
2413	A. W. Faber's " extra large	"	20			
2414	Ink and Pencil Eraser, in wood	Each.	\$0 15			
2415	Ink " " mammoth		25			



No. 2416.



No. 2415.

2416	Para Pencil Rubber	Per stick, \$0 05	\$0 10	\$0 15	\$0 20	\$0 25
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No. 2417.

2417	Cabinet Pencil Rubber	Per stick, \$0 10	\$0 15	\$0 20	\$0 25	
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"APEX" PENCIL, INK AND TYPEWRITER ERASER.

Something New. Cheap. Lasting.



No. 2418.

2418	Apex Pencil, Ink and Typewriter Eraser	Each.	Per doz.
		\$0 10	\$0 75

The rubber of this eraser is stretched over a hard bone center, which does not allow the eraser part to yield; thus, a single line or letter can be erased without blurring the surrounding lines or letters. The best selling rubber on the market.

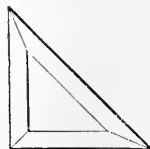
DRAWING—Continued.



No. 2419.

Triangles.

PEARWOOD TRIANGLES—Framed Open Center.



No. 2425.

		Each.
2419	4-inch, 30x60 degrees.....	\$0 15
2420	6 " " " "	20
2421	7 " " " "	25
2422	9 " " " "	30
2423	11 " " " "	35
2424	14 " " " "	40

		Each
2425	4-inch, 45x90 degrees.....	\$0 15
2426	6 " " " "	20
2427	7 " " " "	25
2428	9 " " " "	30
2429	11 " " " "	35
2430	13 " " " "	45



No. 2431.

MAHOCANY TRIANGLES—Ebony Lined.



No. 2437.

		Each.
2431	7-inch, 30x60 degrees.....	\$0 50
2432	9 " " " "	60
2433	11 " " " "	70
2434	14 " " " "	90
2435	17 " " " "	1 10
2436	20 " " " "	1 50

		Each.
2437	6 - inch, 45x90 degrees...	\$0 50
2438	7 1/2 " " " "	60
2439	9 " " " "	70
2440	11 1/2 " " " "	90
2441	14 " " " "	1 10
2442	16 " " " "	1 50



No. 2443.

HARD RUBBER TRIANGLES.



No. 2445.

2443 Hard Rubber Triangles, 30x60 degrees:

Inches,	4	5	6	7	8	9	10	11	12	13	14	15	16
Each.....	\$0 20	25	30	35	45	50	60	70	80	90	1 10	1 25	1 50

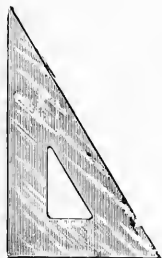
2444 Hard Rubber Triangles, 22 1/2 x 67 1/2 degrees:

Inches,	4	5	6	7	8	9	10	11	12	13	14	15	16
Each.....	\$0 20	25	30	35	45	50	60	70	80	90	1 10	1 25	1 50

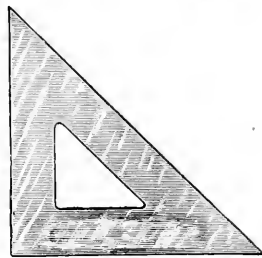
2445 Hard Rubber Triangles, 45 degrees:

Inches,	4	5	6	7	8	9	10	11	12	13	14	15	16
Each.....	\$0 30	35	40	50	60	70	90	1 10	1 25	1 50	1 75	2 00	2 25

DRAWING—Continued.



No. 2446.

TRANSPARENT "AMBER"
TRIANGLES.THE ADVANTAGES OF TRANSPARENT
"AMBER" TRIANGLES ARE:

No. 2447.

They will allow of more rapid accurate work, owing to their transparency; they do not assimilate dust; they are nearly unbreakable; they keep their edges like metal tools; in fact, they have every possible advantage over wood and rubber.

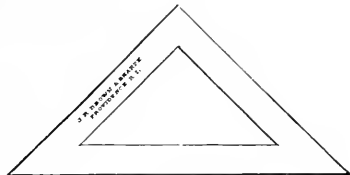
2446	Transparent "Amber" Triangles, 30x60 degrees:																
Inches.....	4	5	6	7	8	9	10	11	12	13	14	15	16	18			
Each	\$0 30	35	40	50	60	70	80	1 00	1 15	1 25	1 50	1 85	2 15	2 85			

2447	Transparent "Amber" Triangles, 45 degrees:																
Inches.....	4	5	6	7	8	9	10	11	12	13	14	15	16	18			
Each	\$0 40	50	60	70	80	1 00	1 15	1 25	1 50	1 85	2 15	2 45	2 85	3 25			

METAL TRIANGLES.



No. 2448.



No. 2449.

2448	Steel Triangles, nickel-plated, open center, 30x60 degrees:																
Inches.....	6	7	8	10 $\frac{1}{2}$	15												
Each	\$3 25	3 75	4 00	4 50	6 50												

2449	Steel Triangles, nickel-plated, open center, 45 degrees:																
Inches.....	5	6 $\frac{1}{2}$	8	10	12												
Each	\$3 25	3 75	4 50	5 50	6 50												

2450	Steel Triangles, nickel-plated, solid, 30x60 degrees:																
Inches.....	2 $\frac{1}{2}$	3	4														
Each	\$0 75	85	1 00														

2451	Steel Triangles, nickel-plated, solid, 45 degrees:																
Inches.....	2	2 $\frac{1}{2}$															
Each	\$0 75	1 00															

2452	German Silver Triangles, open center, 30x60 degrees:																
Inches.....	5 $\frac{1}{2}$	7	8	10	12	14											
Each	\$2 50	2 75	3 00	4 00	5 00	6 50											

2453	German Silver Triangles, open center, 45 degrees:																
Inches.....	5	6	8	10	12												
Each	\$2 50	2 75	4 00	5 00	6 50												

2454	Aluminum Triangles, open center, 30x60 degrees:																
Inches.....	6	8	10	11	12	13	14										
Each	\$2 50	3 00	4 00	4 50	5 00	5 75	6 50										

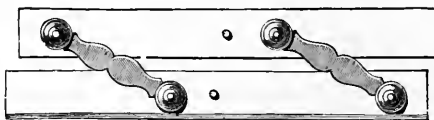
2455	Aluminum Triangles, open center, 45 degrees:																
Inches.....	5	7	8	9	10	11	12										
Each	\$2 50	3 50	4 00	4 50	5 00	5 75	6 50										

The Aluminum Triangles are about one-third the weight of Steel or German Silver Angles, and much cleaner.

NOTE.—For more extensive line of drawing instruments, see our "Mathematical Catalogue."

DRAWING—Continued.

FOLDING PARALLEL RULES.



EBONY FOLDING PARALLEL RULES, BRASS BARS.

Nos.....	2456	2457	2458	2459	2460	2461
Inches.....	6	9	12	15	18	24
Each	\$0 25	50	75	1 00	1 25	2 00

HARD RUBBER FOLDING PARALLEL RULES, NICKEL-PLATED BARS.

These do not warp by changes of atmosphere.

Nos.....	2462	2463	2464	2465	2466	2467
Inches.....	6	9	12	15	18	24
Each.....	\$0 75	1 00	1 25	1 50	1 75	2 50

TRANSPARENT AMBER FOLDING PARALLEL RULES.

Nos.....	2468	2469	2470	2471	2472	2473
Inches.....	6	9	12	15	18	24
Each.....	\$0 85	1 25	1 50	1 75	2 25	3 00

ROLLING PARALLEL RULES, EBONY.



No. 2474.

					Each.
2474	Ebony Rolling Parallel Rule, 9-inch, brass mountings.....				\$2 75
2475	Ebony " " 12 " "				3 25
2476	Ebony " " 15 " "				4 00
2477	Ebony " " 18 " "				5 00

ROLLING PARALLEL RULES, HARD RUBBER.

					Each.
2478	Rubber Rolling Parallel Rule, 9-inch, nickel-plated mountings.....				\$3 50
2479	Rubber " " 12 " "				4 25
2480	Rubber " " 15 " "				5 00
2481	Rubber " " 18 " "				6 00

TRANSPARENT AMBER ROLLING PARALLEL RULES.

					Each.
2482	Amber Rolling Parallel Rule, 9-inch, nickel-plated mountings.....				\$4 00
2483	Amber " " 12 " "				4 75
2484	Amber " " 15 " "				5 75
2485	Amber " " 18 " "				7 50
2486	Amber " " 24 " "				9 50

NOTE.—A more complete line of parallel rules will be found listed in our "Mathematical Catalogue."

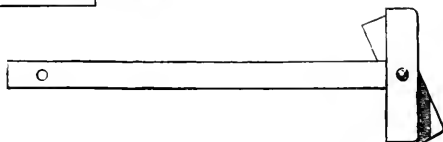
DRAWING—Continued.

T SQUARES.



No. 2487.

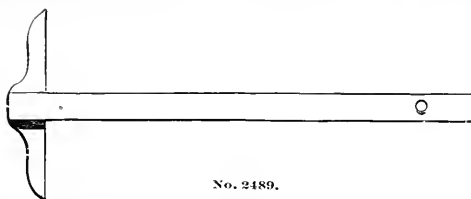
No. 2488.

**2487** Pearwood or Maple, Well Seasoned, Fixed Heads:

Inches	15	18	21	24	30	36	42	48	60
Each	\$0 30	35	40	45	50	65	75	1 00	1 50

2488 Pearwood or Maple, Shifting Head:

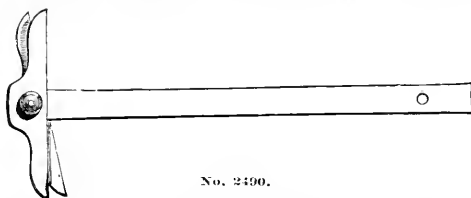
Inches	15	18	21	24	30	36	42	48	60
Each	\$0 70	75	85	95	1 00	1 15	1 35	1 60	2 25



No. 2489.

2489 Maple Blade, Black Walnut Fixed Head:

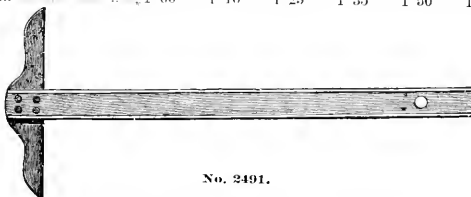
Inches	18	21	24	30	36	42	48	54
Each	\$0 55	65	75	90	1 00	1 15	1 25	1 50



No. 2490.

2490 Maple Blade, Black Walnut Shifting Double Head, with Brass Milled Head Swivel:

Inches	18	21	24	30	36	42	48	54
Each	\$1 00	1 10	1 25	1 35	1 50	1 75	1 85	2 25



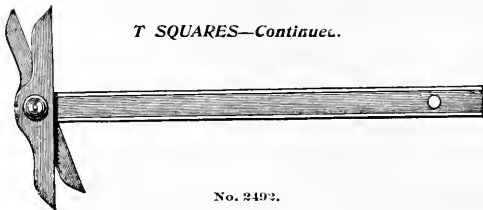
No. 2491.

2491 Hardwood Lined Blade, Black Walnut Fixed Head:

Inches	24	30	36	42	48	54	60	72
Each	\$1 00	1 10	1 25	1 50	1 75	2 25	2 75	4 00

DRAWING—Continued.

T SQUARES—Continued.



No. 2492.

2492 Hardwood Lined Blade, Black Walnut Shifting Double Head, with Fine Brass Milled Head Swivel:

Inches.....	24	30	36	42	48	54	60	72
Each.....	\$1 50	1 60	1 75	2 00	2 25	2 75	3 50	5 00



No. 2493.

2493 Mahogany Head and Blade, Ebony Lined, Fixed Head:

Inches.....	24	30	36	42	48	54
Each.....	\$1 15	1 25	1 50	1 75	2 25	2 75

2494 Mahogany Head and Blade Transparent "Amber" Lined, Fixed Head:

Inches.....	24	30	36	42	48	54	60
Each.....	\$1 60	2 00	2 50	3 25	3 75	4 50	5 50



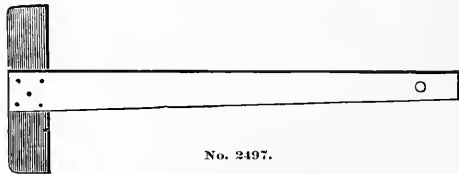
No. 2495.

2495 Mahogany Head and Blade Ebony Lined, Shifting Double Head, with Fine Brass Thumb-Screw and Washer:

Inches.....	24	30	36	42	48	54
Each.....	\$2 00	2 35	2 65	3 00	3 50	4 25

2496 Mahogany Head and Blade Transparent "Amber" Lined, with Shifting Head:

Inches.....	24	30	36	42	48	54	60
Each.....	\$2 50	3 00	3 75	4 25	5 00	6 00	6 75



No. 2497.

2497 Mahogany Head and Blade, Tapered, Ebony Lined, Fixed Head:

Inches.....	30	36	42	48	54
Each.....	\$1 75	2 00	2 50	3 25	4 00

2498 Hardwood Blade, Tapered, Black Walnut Fixed Head:

Inches.....	24	30	36	42	48
Each.....	\$1 00	1 20	1 50	1 75	2 00

The blade is tapered and very wide at the base, to prevent spring at the further (free) end. The drawing edge is in line with the middle of the head.

DRAWING—Continued.**DEANE'S PATENT ADJUSTABLE T SQUARES.****LIMITED ADJUSTMENT.**

Some of the special advantages of limited T squares are:

1. They can be instantly adjusted to conform with existing lines of drawing, which are frequently disturbed by atmospheric changes; this makes them invaluable for tracing. The adjustment is accomplished by loosening the jam or outer nut on the regulating screw and bringing the blade to the desired position with the vernier or inner nut. It is then locked with the jam nut, making the head as rigid as if made of one piece.
2. The inner or bearing head, being in no place confined, will, if affected by the weather, shrink or expand equally its whole length and remain straight, which the heads of common squares, under like conditions, cannot do.
3. The position of the blade is such that when necessary to work near the lower edge of the drawing board, a bearing of at least one-half the length of the head is retained.



No. 2499.

2499	Deane's Limited T Square, Maple Blade, Walnut Head:							
Inches	24	30	36	42	48	54	60	
Each	\$1 20	1 35	1 50	1 60	1 75	2 25	2 50	
2500	Deane's Limited T Square, Ashwood Blade, Maple Lined, Walnut Head:							
Inches	24	30	36	42	48	54	60	
Each	\$1 55	1 65	1 75	2 00	2 25	2 50	3 00	
2501	Deane's Limited T Square, Mahogany Blade and Head Ebony Lined:							
Inches	24	30	36	42	48	54	60	
Each	\$1 80	2 00	2 15	2 35	2 50	2 75	3 25	

UNLIMITED ADJUSTMENT.

These squares, while retaining the same adjustment, are provided with a new and improved swivel connection, which gives them an "unlimited" range of angles. The swivel, being a combination of screw and cam, permits any required degree of pressure on the clamp, and will hold the blade firmly in any position, without the liability of slipping. They are designed to meet requirements of surveyors, civil engineers, map makers, and all who have occasion to use a shifting head square.

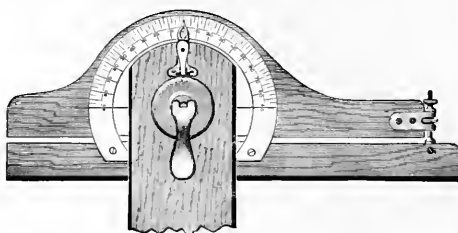


No. 2502.

2502	Deane's Unlimited T Square, Maple Blade, Walnut Head:							
Inches	24	30	36	42	48	54	60	
Each	\$1 70	1 90	2 10	2 25	2 50	2 75	3 00	
2503	Deane's Unlimited T Square, Ashwood Blade, Maple Lined Walnut Head:							
Inches	24	30	36	42	48	54	60	
Each	\$2 15	2 25	2 35	2 50	2 75	3 00	3 50	
2504	Deane's Unlimited T Square, Mahogany Head and Blade, Ebony Lined:							
Inches	24	30	36	42	48	54	60	
Each	\$2 25	2 50	2 65	2 85	3 00	3 25	3 75	

DRAWING—Continued.

PROTRACTOR OR "CLIMAX" "T" SQUARES.



No. 2505.

We claim for our "Climax" or Protractor "T" Squares the same superiority accorded our other make of squares. Without the loss of accuracy, we gain the advantage of our quick-acting clamp, by using the Micrometer Adjustment only, to correct the variations in a swinging adjustment. After the blade is clamped for this purpose we use an especially designed protractor, attached to the auxiliary or bearing-head, having its center common with that of the stud on which both blade and bearing-head swing. The adjusting screw, being at extreme end of head, secures an adjustment positive, yet of extraordinary sensitiveness.

In addition to the adjustments of blade and protractor, the pointer has another and independent adjustment compensating for inaccuracies in drawing boards, and enables the user to verify his square, having only to adjust the blade to conform with an established base line, or to square the blade with the head, using a carpenter's try-square for that purpose, and adjusting the pointer to zero, with the two small set screws at opposite end. This is an entirely new feature, and its value is obvious.

2505 Mahogany, Ebony Lined Blades and Head, Polished, Nickel Mountings:

Inches	30	36	42
Each	\$5 50	6 00	7 00

STRAIGHT EDGES OF WOOD, RUBBER AND AMBER.**2506 Hardwood, Beveled Edge, Thick:**

Inches	18	24	30	36	42	48	54	60
Each	\$0 20	25	30	40	50	75	1 00	1 25

2507 Hardwood Lined, Square Edges, Thin:

Inches	24	30	36	42	48	54	60	72
Each	\$0 40	50	70	85	1 15	1 50	2 00	3 00



No. 2508.

2508 Mahogany, Ebony Lined, Square Edges:

Inches	24	30	36	42	48	54	60	72
Each	\$0 55	70	1 00	1 25	1 60	2 00	2 50	3 50



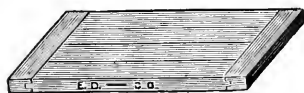
No. 2509.

2509 Hard Rubber, Straight Edges, Square Edges:

Inches	12	15	18	24	30	36	42
Each	\$0 35	40	50	75	1 00	1 50	2 00

DRAWING—Continued.**DRAWING BOARDS.**

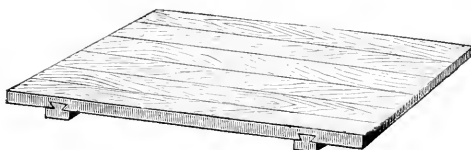
Made With the Utmost Care, of Selected Narrow and Thoroughly Seasoned Strips.



No. 2910.

2910 Pinewood, with Two Drawing Surfaces and Side Ledges:

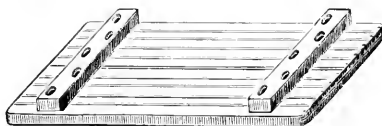
Inches.....	12x17	15x21	20x26	23x31	24x36
Each	\$0 70	90	1 25	1 50	1 75



No. 2911.

2911 Pinewood, with Hardwood Ledges Dovetailed into the Board to Allow Contraction and Expansion:

Inches.....	20x26	23x31	31x42	36x55	42x60
Each	\$1 75	2 50	3 75	5 00	6 50



No. 2912.

Pinewood, with hardwood ledges screwed to the back; the screws pass through the ledges in oblong slots with metal bushings, which fit closely under the heads and yet allow the screws to move freely when drawn by the contraction of the board. A series of grooves is sunk in half the thickness of the board over the entire back.

To make the working edge perfectly smooth, allowing an easy movement with the square, a slip of hardwood is let into the end of the board. The slip is sawed apart at about every inch to permit contraction.

2912 Inches.....	20x26	23x31	31x42	36x55	42x60
Each	\$2 75	3 25	4 50	6 50	8 00

Larger drawing boards of any size and style made to order.

NOTE.—See Aloe's Mathematical Catalogue for more complete list.

DRAWING—Continued.

ALOE'S "CEM" ADJUSTABLE AND FOLDING DRAWING TABLE.

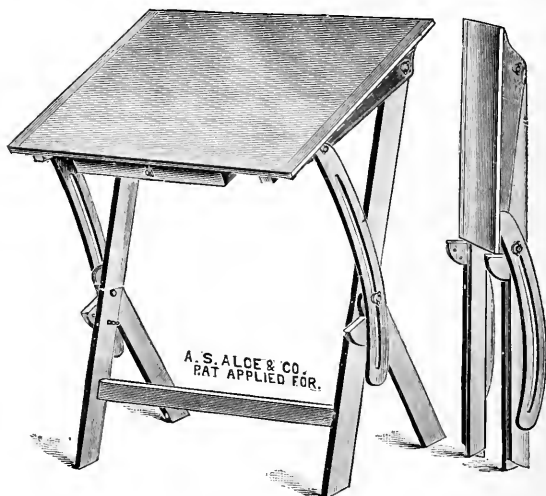


Fig. 1.—Table Open.

Fig. 2.—Table Closed.

The above cut shows a new and desirable form of table, embracing, as it does, all the essential points of the higher priced tables in the market at a very small cost. Its advantages are, viz.:

1st. Height can be raised and lowered by spreading the legs; a spring bolt, shown in cut, clamping same at height desired.

2d. Board can be set any incline or angle.

3d. Folds up, occupying little more space than an ordinary board, a great advantage when a table is not used constantly, as it can be put out of the way or set up in a few minutes.

4th. It is the cheapest, and at the same time the best made, table in the market, the frame being made of hardwood (the legs being $1\frac{1}{2} \times 3$ inches), the board of well-seasoned pine wood, varying in thickness from $1\frac{1}{2}$ inch to $1\frac{3}{4}$ inch, according to size. Each table is furnished with instrument drawer 12×14 inches. All parts are put together and bolted in the most approved manner, making it thoroughly indestructible.

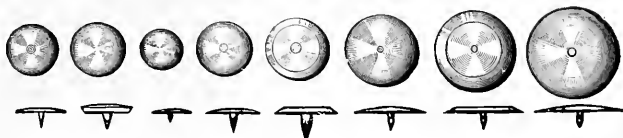
2913	Size of board,	26x32 inches	.....	Price, \$	7 50
2914	Size	30x36	“	“	9 00
2915	Size	36x48	“	“	11 00
2916	Size	42x60	“	“	13 00
2917	Size	48x66	“	“	15 00

Special sizes to order.

NOTE.—An extensive line of drawing tables will be found in our Mathematical Catalogue.

DRAWING—Continued.

THUMB TACKS.



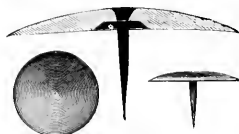
"ACME" FINE GERMAN SILVER TACKS.

Steel Points, Screwed in and Riveted.

The "Acme" Thumb Tacks are made by hand with great care. They have best hardened steel pins, nicely proportioned in thickness and length, so as not to bend, which are SCREWED and riveted into German Silver heads with fine thin edges, offering no obstruction to T square or triangle to slide over.

		Per doz.			Per doz.
2918	Round Head, $\frac{7}{16}$ -inch diameter	\$0 60	2922	Beveled Head, $\frac{7}{16}$ -inch diameter	\$0 60
2919	Round " $\frac{1}{2}$ " " "	70	2923	Beveled " $\frac{1}{2}$ " " "	70
2920	Round " $\frac{9}{16}$ " " "	80	2924	Beveled " $\frac{9}{16}$ " " "	80
2921	Round " $\frac{5}{8}$ " " "	90	2925	Beveled " $\frac{5}{8}$ " " "	90

"PERFECTION" GERMAN SILVER TACKS.



No. 2926.

This tack, as shown in the cut, is made on an entirely new principle, preventing, as it does, the pin from coming through the head, as the old style riveted head tack was liable to do. The pins are of steel and well made; the heads are German Silver, with fine edges. We can recommend them as a good tack at a moderate price.

		Per doz.			Per doz.
2926	Round Head, $\frac{3}{8}$ -inch diameter	\$0 30	2931	Beveled Head, $\frac{3}{8}$ -inch diameter	\$0 30
2927	Round " $\frac{7}{16}$ " " "	35	2932	Beveled " $\frac{7}{16}$ " " "	35
2928	Round " $\frac{1}{2}$ " " "	40	2933	Beveled " $\frac{1}{2}$ " " "	40
2929	Round " $\frac{9}{16}$ " " "	45	2934	Beveled " $\frac{9}{16}$ " " "	45
2930	Round " $\frac{5}{8}$ " " "	50	2935	Beveled " $\frac{5}{8}$ " " "	50

"PERFECTION" BRASS TACKS.

Steel Points, Riveted.

		Per dozen, \$0 15
2936	Round Head, $\frac{3}{8}$ -inch diameter	20
2937	Round " $\frac{1}{2}$ " " "	25
2938	Round " $\frac{5}{8}$ " " "	

STEEL STAMPED TACKS.

Made of One Piece of Steel. A Portion of the Head Forming the Pin.



No. 2939.

		Per dozen, \$0 10	Per box of 100, \$0 50
2939	Round Head, $\frac{5}{16}$ -inch diameter	12	75
2940	Round " $\frac{3}{8}$ " " "	15	1 00
2941	Round " $\frac{1}{2}$ " " "		

DRAWING—Continued.

Drawing Instruments.

NICKEL-PLATED INSTRUMENTS.

For School Use.



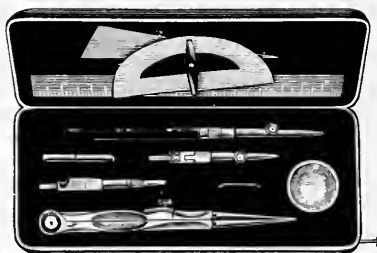
No. 2942.

- 2942** Containing compasses, $4\frac{1}{2}$ -inch, with fixed patent pencil point, with wrench and box of leads, in velvet lined paper case Each, \$0 25



No. 2943.

- 2943** Containing compasses, $4\frac{1}{2}$ -inch, with pen and pencil points, box of leads and color dish Each, \$0 60

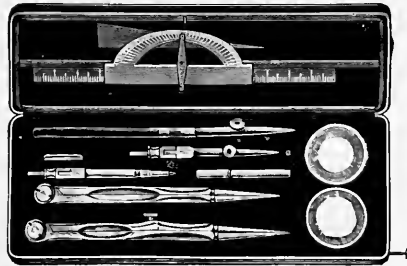


No. 2944.

- 2944** Containing $4\frac{1}{2}$ -inch compasses, with pen and pencil points, 5-inch ruling pen, box of leads, color saucer, triangle, protractor and rule..... Each, \$0 85

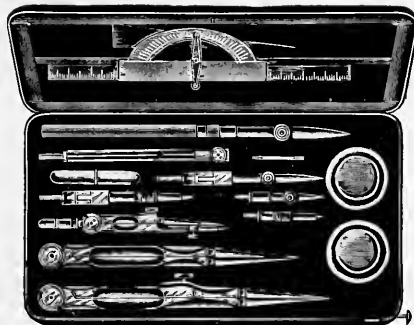
DRAWING—Continued.

NICKEL-PLATED INSTRUMENTS—Continued.



No. 2945.

- 2945** Containing 4½-inch compasses, with pen and pencil points, 4-inch plain divider, 5-inch ruling pen, box of leads, color saucers, protractor rule and triangle Each, \$1 10
- 2946** Same as 2945, but compasses 5½-inch instead of 4½-inch " 1 25



No. 2947.

- 2947** Containing 5½-inch compasses, with pen and pencil, 5-inch plain divider, 3-inch compasses, fixed needle point, pen and pencil points, 5-inch ruling pen, box of leads, color saucers, protractor rule and triangle Price, \$1 65

DRAWING—Continued.

NICKEL-PLATED SCHOOL DRAWING INSTRUMENTS.

This is a New Line of Low-Priced Instruments, and will be Found Vastly Superior to the French Brass Instruments Usually Listed by Most Dealers, and at a Lower Price.



Nos. 2953

2954

2949

2950

2951

2952

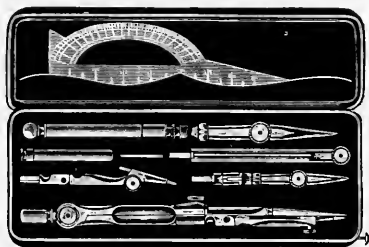
		4 $\frac{1}{4}$ -in.	5 $\frac{1}{2}$ -in.
2948	Plain Divider, rivet head.....	\$0 15	\$0 20
2949	Plain " screw "	20	25
2950	Compasses, with pencil point.....	30	40
2951	Compasses, " pen and pencil point.....	45	60
2952	Compasses, " " " " and lengthening bar.....	55	65
2253	Ruling Pen, 5-inch, ebony handle.....	Each, 20	
2254	Ruling " 5 $\frac{1}{2}$ " bone "	" 30	

DRAWING—Continued.

GERMAN SILVER INSTRUMENTS.

For School Use. Good Quality at Moderate Price.

The cases are closed by a rod passing sideways through the box. Dividers are made of the new improved pattern, with round legs and patent ball joint.



No. 2955.

- 2955** Containing compasses, $5\frac{1}{2}$ -inch, with fixed needle point, pen and pencil points and lengthening bar, 5-inch ruling pen, box of leads, protractor and square. Each, \$2 50

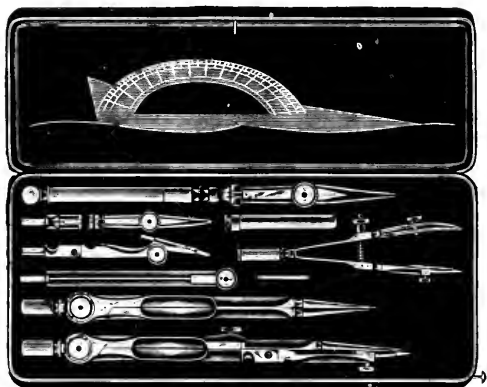


No. 2956.

- 2956** Containing compasses, $5\frac{1}{2}$ -inch, with fixed needle point, pen and pencil points, lengthening bar, 5-inch plain divider, 5-inch ruling pen, box of leads, protractor and square Each, \$3 25

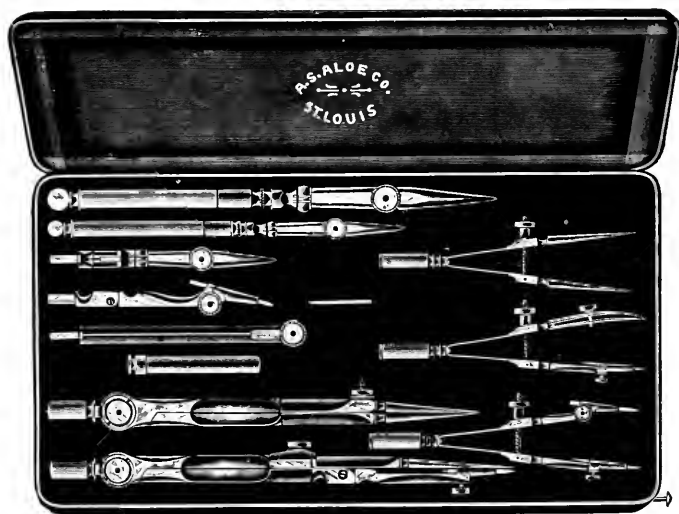
DRAWING—Continued.

GERMAN SILVER INSTRUMENTS—Continued.



No. 2957.

- 2957** Containing compasses, $5\frac{1}{2}$ -inch, with fixed needle point, pen and pencil points and lengthening bar, 5-inch plain divider, 3-inch spring bow pen, 5-inch ruling pen, box of leads, protractor and square Each, \$4 25



No. 2958.

- 2958** Containing compasses, $5\frac{1}{2}$ -inch, with fixed needle point, pen and pencil points and lengthening bar, 5-inch hair spring divider, 3-inch steel spacing divider, 3-inch steel spring bow pen, 3-inch steel spring bow pencil, $4\frac{1}{2}$ -inch and 5-inch ruling pens, box of leads, protractor and square Each, \$9 00

Household Decorative Goods.

ALOE'S CELEBRATED PURE HARD ENAMEL COLORS.

For Household Decoration.

Offered in handsome and artistic shades, and especially adapted for enameling picture frames brackets, bric-a-brac, fancy tables and stands, fire screens, vases, chairs, and wooden, wicker earthen or metal articles of every description. They are perfect goods for this class of work, and will satisfy the most critical. Put up in bottles with corks, which enables the purchaser to preserve the unused portion in perfect condition any length of time.

The hard, smooth and highly polished surface they impart to articles upon which applied renders it an easy matter to keep same bright and clean, and the handsome and delicate tints in which they are offered make them especially desirable for ornamental purposes. The enamel is ready for use and can be applied by any one with the most satisfactory results. A surface covered with our enamel paint will not show a brush mark.

Azure

Pink

Ivory

Grey

White

Light Yellow

Light Green

Red

Maroon

Lilac



Black

Light Blue

Dark Green

Turquoise Blue

Turquoise Green

Old Rose

Peacock Blue

Bloom

Vermilion

No. 2959.

2959	Bottles, white and all shades.....	Per bottle, \$0 25	Per doz \$3 00
2960	Per gallon, in 1-gallon Cans.....	Each, 4 00	.....
2961	Enamel Brushes, 1-inch wide.....	" 10	100
2962	Sample color card mailed free on application.		

ALOE'S CELEBRATED BATH-TUB ENAMEL.

Why don't you have a handsome bath-tub? The expense attached to producing a handsome durable enamel finish upon any old worn-out bath-tub by the use of our Bath-Tub Enamel is so slight as to need no consideration when the benefit derived by the use of same is properly considered. It offers the most economical and satisfactory means of securing a clean, handsome and durable bath, that will be an ornament to any home.

2963	Pure White.....	Per bottle, \$0 25	Per dozen, \$3 00
2964	Pure " Per gallon, in 1-gallon cans.....	.....	4 00

HOUSEHOLD DECORATIVE GOODS—Continued.

ALOE'S BICYCLE ENAMEL.

We present these enamels for the convenience of owners of bicycles whose "wheels" have become marred, scratched or defaced, and also for the purpose of finishing same in any of the late popular shades. By their use an exceedingly durable, handsome, smooth, hard enamel finish with a beautiful lustre is secured.

As an economical means of securing a handsome finish these goods are unequaled, a single bottle, at a trifling cost, being sufficient to cover a "wheel" several times. The cork which accompanies the enamel enables the purchaser to keep same in good condition for future use.

Aloe's Bicycle Enamels dry quickly and hard in a very short time, and are so easily applied that the most satisfactory results may be obtained by any inexperienced person.

Put up in the following artistic shades:

Azure	Light Yellow	Light Blue	Old Rose
Pink	Red	Dark Green	Bloom
Ivory	Maroon	Turquoise Blue	Vermilion
Black	Lilac	Turquoise Green	Peacock Blue

2965 Per bottle, \$0 25 Per dozen, \$3 00

TO THE DEALER.—All of our enamels and finishes are put up in attractive form, silver-capped and neat in every way. Properly displayed, they sell themselves, and there is no more desirable line a retailer or jobber could possibly handle.

ALOE'S CELEBRATED "NEW FURNITURE FOR OLD"
FURNITURE POLISH.

[TRADE-MARK.]

No. 2966.

This justly celebrated specialty of ours may be safely used on the finest piece of furniture made. We might aptly name it "A Lazy Man's Polish," as it requires little or no rubbing to produce a high finish and the surface is left dry and free from oil.

	Per bottle.		Per doz.
2966 Price.....	\$0 20	Price.....	\$2 40

ALOE'S CELEBRATED OIL WOOD STAINS.

Same style bottle as No. 2969, except it produces the dead finish of the natural wood.

	Per bottle.	Per doz.		Per gallon.
2967 Oak.....	\$0 20	\$2 40	2968 Oak.....	\$2 25
Walnut.....	20	2 40	Walnut.....	2 25
Cherry.....	20	2 40	Cherry.....	2 25
Mahogany.....	20	2 40	Mahogany.....	2 25

HOUSEHOLD DECORATIVE GOODS—Continued.

ALOE'S CELEBRATED VARNISH WOOD STAINS.

Especially adapted for finishing or refinishing woodwork, furniture, etc., and produces handsome imitations of expensive woods upon any ordinary surface. Dries quickly with a beautiful durable gloss. These varnish stains cannot fail to fully satisfy the most critical. They stain and varnish at a single operation, and will dry hard in a short time with a beautiful and durable lustre. Handsome imitations of expensive woods may be obtained by any inexperienced person suitable for finishing or refinishing chairs, tables, stands, shelves, benches, toys, screens, sleds, baby carriages, doors, and, in fact, painted, varnished or unpainted wooden, willow, earthen or metal ware of every description.



No. 2969.

		Per bottle. Per doz.				Per gallon.	
2969	Walnut.....	\$0 25	\$3 00	2970	Walnut.....	\$3 00	
	Oak.....	25	3 00		Oak.....	3 00	
	Ebony.....	25	3 00		Ebony.....	3 00	
	Cherry.....	25	3 00		Cherry.....	3 00	
	Mahogany.....	25	3 00		Mahogany.....	3 00	

ALOE'S RESTORINE.

[TRADE-MARK.]

For Cleaning and Preserving Oil Paintings.

With this preparation old oil paintings can be restored to their original colors. It is absolutely harmless and preserves as well as restores the painting.

		Per 8-oz. bottle.			Per doz.
Price.....		\$0 35	Price.....		\$4 20

ALOE'S SUPERIOR FURNITURE VARNISH.

A Superior Varnish for Household Purposes.

		Per bottle, \$0 25	Per doz., \$3 00	Per gallon, \$3 75
2971	Light.....			
2972	Dark.....	25	3 00	3 75

HOUSEHOLD DECORATIVE GOODS—Continued.

SUPERIOR FLOOR VARNISH.

This varnish is specially adapted for varnishing hardwood floors; it will not scratch or mar, and is exceedingly durable; under no circumstances will it turn white.

Frequent washings only bring out the lustre; and for any place where water is used, such as bath-rooms, closets, sinks, etc., is just what is needed.

2973	1 to 5 gallon cans.....	Per gallon, \$2 50	Half-gallon cans.....	\$1 35
	Quart cans.....	70	Pint cans.....	40

Special price on application in lots of one or more barrels.

FAMILY PAINT.

The Perfection of Convenience. Ready to Use. Quick Drying. Glossy.

Durable and Economical. Put up in Small Patent Cans Only.

		Half-pint. Per can, \$0 20	Pint. \$0 35	Quart \$0 60
2974	White.....	20	35	60
	Black.....	20	35	60
	Brown.....	20	35	60
	Light Blue.....	20	35	60
	Flesh Tint.....	20	35	60
	Lemon Yellow.....	20	35	60
	French Grey.....	20	35	60
	Light Stone.....	20	35	60
	Silver Grey.....	20	35	60
	Cream.....	20	35	60
	Lavender.....	20	35	60
	Apple Green.....	20	35	60
	Pea Green.....	20	35	60
	Peach.....	20	35	60
	Cherry Red.....	20	35	60
	English Yellow.....	20	35	60
	Dark Blue.....	25	45	75
	Green.....	25	45	75
	Scarlet Vermilion.....	25	45	75

For painting tables, shelves, chairs, flower-pots, stauds, toys, and innumerable articles about a home, this paint is so useful as to render it a household necessity.

WALL PAPER CLEANER.

Try it high up on an outside wall that has never been brushed or dusted. The result will speak for itself.

2975 Sufficient to clean one room.....Per package, \$0 75

Directions.—Rub all one way, working the dirt to the center of your cleaner. If cleaner slips or crumbles, work water to the center of your ball till sticky enough to clean right. Use one piece till black as tar. Keep covered with tin all you are not using.

SUPERIOR LIQUID BLACKBOARD SLATING.

Guaranteed to give better results than any similar article now offered. Put up as follows:

	Per gal.		Per gal.
2976 5-gallon kegs.....	\$2 00	1 ₂ -gallon cans.....	\$2 40
1 " cans.....	2 25	1 ₄ " ".....	2 50

LIQUID WOOD FILLERS.

Substitute for Shellac.

Particularly adapted for Pine, Poplar, Oak, Cherry, Maple, and all close-grain woods; does not raise the grain of the wood; requires no sandpapering; perfectly transparent; will not discolor the lightest wood.

the lightest wood.		Per gal.		Per gal.
2977	Light	\$2 00	Walnut	\$2 25
	Cherry	2 25	Mahogany	2 25

HOUSEHOLD DECORATIVE GOODS—Continued.

ENAMEL FLOOR PAINT.

Prepared Ready for Application. Put up in Quarts, Half-Gallons and Gallons.

	Per gal.		Per gal.
2978 No. 1. Buff, in tin.....	\$2 00	No. 4. Slate, in tin.....	\$2 00
No. 2. Light Brown, in tin.....	2 00	No. 5. Light Red, in tin.....	2 00
No. 3. Dust Color, ".....	2 00	No. 6. Yellow, ".....	2 00

This is a superior quality of paint, made expressly for the purpose indicated, the object being to produce the most durable and satisfactory coating on a wood floor which can be obtained. By careful application to a surface free from grease or moisture, it will not blister, peel or rub off, and will dry with a glossy surface, under ordinary circumstances, in one night. It will become very hard, yet sufficiently elastic to render it remarkably durable.

DISTEMPER OR FRESCO COLORS.

Put up in One Pound Glass Jars, Movable Covers.

	Per bottle.		Per bottle.
2979 Drop Black.....	\$0 20	Raw Italian Sienna.....	\$0 20
Raw Turkey Umber.....	20	Burnt Italian Sienna.....	20
Burnt Turkey Umber.....	20	Vandyke Brown.....	20

ALOE'S CELEBRATED TRANSFERINE.

(Trade-Mark.)

An absolutely harmless preparation for reproducing pictures from illustrated papers upon writing or drawing paper.

Every child can make its own scrap book of celebrated personages, singers and actors, athletes, preachers, buildings, landscapes, rogues-gallery, etc., etc.

"*Transferine*" is put up in a neat box with brush ready for use. The latest novelty for children. It sells at sight!



2980 Price, per bottle, with brush.....Each, \$0 25 Per doz., \$3 00

Directions.—Cut picture from a newspaper; place it upon some hard surface (glass, wood or stone, etc.); paint the picture with "Transferine," and when well saturated lay a piece of blank paper (not too smooth) over it and rub firmly with finger or teaspoon.

HOUSEHOLD DECORATIVE GOODS—Continued.

ALOE'S SATIN LIQUID.

To be Used with Oil Colors for Painting on Silk, Morocco or Paper, Etc.

2981 Price, per bottle..... Each, \$0 30 Per doz., \$3 00

Directions.—Mix the colors on a palette; fill the brush with Satin Liquid and stir into the paint; when it evaporates, stir in more. Keep the paint a little thinner than when oil is used. In working outlines have but little paint in the brush; let the under-painting be perfectly dry before finishing up; satin or silk should be of good quality.

Plaster Casts.



CASTS GENERALLY USED IN DRAWING SCHOOLS.

STATUES.

	Height.		Price.
2982	90-in.	Venus de Milo.....	\$40 00
2983	34 "	Venus de Milo.....	6 00
2984	24 "	Venus de Milo.....	2 50
2985	19 "	Venus de Milo.....	1 50
2986	34 "	Fighting Gladiator.....	6 00
2987	20 "	Fighting Gladiator.....	4 00
2988	66 "	Venus de Medici.....	25 00
2989	27 "	Venus de Medici.....	3 00
2990	36 "	Eve.....	6 00
2991	20 "	Eve.....	2 00
2992	24 "	Venus by Carpol.....	2 50
2993	27 "	Discobolus.....	2 50
2994	27 "	Antinous.....	2 50
2995	27 "	Narcissus.....	2 50
2996	27 "	Anatomy, by Goudran..	4 00
2997	32 "	Anatomy.....	5 00
2998	27 "	Cupids Standing.....	3 00
2999	36 "	Apollo Belvidere.....	8 00

BUSTS.

3000	32 "	Apollo.....	6 50
3001	23 "	Apollo.....	2 50
3002	14 "	Apollo.....	1 25
3003	12 "	Apollo.....	1 00
3004	34 "	Venus de Milo.....	7 00
3005	23 "	Venus de Milo.....	2 50
3006	14 "	Venus de Milo.....	1 25
3007	32 "	Diaua.....	6 00

BUSTS.

	Height.		Price.
3008	23-in.	Diana.....	\$2 50
3009	14 "	Diana.....	1 25
3010	28 "	Clytie.....	5 00
3011	23 "	Clytie.....	2 50
3012	14 "	Clytie.....	1 25
3013	26 "	Sabina.....	4 00
3014	26 "	Eve.....	4 00
3015	27 "	Venus de Medici.....	4 00
3016	14 "	Venus de Medici.....	1 25
3017	26 "	Niobe Daughter.....	3 00
3018	33 "	Niobe Mother.....	6 00
3019	27 "	Psyche, from Museum of Naples.....	6 00
3020	30 "	Michael Angelo.....	4 00
3021	27 "	Antinous.....	6 00
3022	30 "	Bacchus.....	6 00
3023	30 "	Raphael Urbino.....	4 00
3024	20 "	Young Augustus.....	2 00
3025	18 "	Cupids, by Fiamingo.....	2 00
3026	18 "	St. Florence.....	2 00
3027	18 "	Greek Idol.....	2 00
3028	24 "	Paris.....	2 50
3029	21½ "	Hermes.....	3 00
3020	13 "	Bacchus.....	1 00
3021	20 "	Fisher Boy.....	2 50
3022	20 "	Fisher Girl.....	2 50
3023	16 "	Demosthenes.....	1 25

PLASTER CASTS—Continued.



PANELS AND MASKS.

	Size.		Price.		Height.		Price.
3034	18x10 in.	Tulips	\$1 00	3054	19-in.	Mask of Apollo Belvedere.....	\$1 25
3035	18x10 "	Pomegranates	1 00	3055	15 "	Slave, by M. Angelo....	1 50
3036	18x10 "	Peaches and Plums..	1 00	3056	15 "	Mask Venus de Milo....	1 00
3037	18x10 "	Pears	1 00	3057	15 "	Mask Aurora	1 00
		Poppy and Pansy....	1 00	3058	15 "	Mask Vittellus.....	1 00
3038	18x10 "	Figs	1 00	3059	15 "	Mask Diana.....	1 00
3039	14x10 "	Lemons	1 00	3060	15 "	Mask Niobe.....	1 00
3040	14x10 "	Oranges.....	1 00	3061	14½"	Mask Spartacus.....	1 00
3041	18x10 "	Quinces.....	1 00	3062	14 "	Mask St. Francis.....	1 00
3042	24x 7 "	Pairs Stork.....each,	1 00	3063	14 "	Mask Achilles.....	1 00
3043	24x10 "	Pairs Owls.....each,	1 00	3064	13½"	Mask Venus at Bath....	1 00
3044	9x12 "	Roses and Carnation	75	3065	14 "	Mask Martius.....	1 00
3045	9x12 "	Roses and Daisies....	75	3066	13 "	Mask Dying Gladiator...	1 00
3046	12x16 "	Homer.....	1 00		11 "	Mask Young Augustus...	1 00
3047	17x14 "	Crescent	1 50	3068	13½"	Mask Laughing Venus...	1 00
3048	18x10 "	Rabbit and Bird.....	1 00	3069	10 "	Mask Venus de Medici...	75
3049	18x10 "	Duck, Fish and Crab..	1 00	3070	14 "	Mask Agrippa	1 00
3050	30 "	Mask of Moses, by M. Angelo.....	2 50	3071	14x20	Mask Three Cupids	2 50
3051	19 "	Mask of Alexander, colossal	2 00	3072	14-in.	Mask Homer	1 00
3052	23 "	Mask of Minerva.....	1 50	3073	15 "	Mask Demosthenes.....	1 00
3053	16 "	Mask of Julius de Medici.....	1 25	3074	15 "	Mask Eros	1 00
				3075	10 "	Mask Cupid	75
				3076	13 "	Mask Caracalla.....	1 00

LIFE-SIZE BUSTS—SQUARE BASE.

Size in General, 22 Inches.

		Price.			Price.
3077	Cicero	\$3 00	3084	Schiller	\$3 00
3078	Plato	3 00	3085	Socrates.....	3 00
3079	Virgilius	3 00	3086	Hypocrites	3 00
3080	Homer	3 00	3087	Esculape	3 00
3081	Demosthenes	3 00	3088	Ambroise Pere.....	3 00
3082	Goethe	3 00	3089	Humboldt	3 00
3083	Columbus	3 00	3090	Washington Irving...	3 00

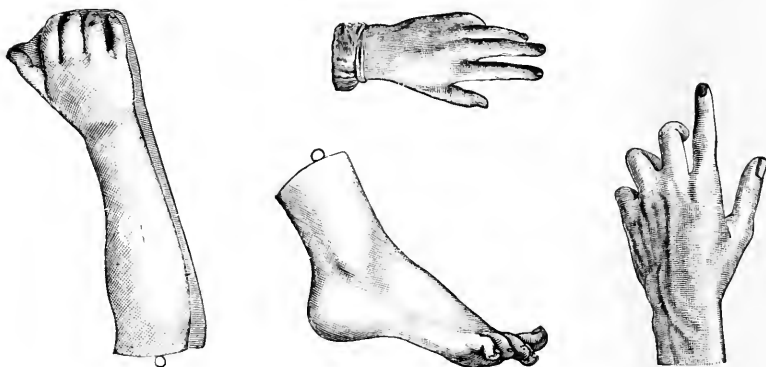
ANATOMICAL CASTS.

	Height.		Price.		Height.		Price.
3091	32-in.	Anatomical Leg.....	\$2 00	3094	33-in.	Anatomical Arm (hand closed)	\$2 00
3092	29 "	Anatomical Leg.....	1 75	3095	11 "	Anatomical Hand.....	80
3093	32 "	Anatomical Arm.....	1 75	3096	10 "	Anatomical Foot.....	90

PLASTER CASTS—Continued.

HANDS, ARMS, FEET, ETC.

From the Antique and Nature.



	Height.		Price.		Height.		Price.
3097	21-in.	Gladiator's Arm	\$1 25	3109	10-in.	Male Hand, resting on cloth.....	\$0 75
3098	22 "	Venus de Medici's Arm	1 25	3110	7 "	Female Hand (open)	50
3099	18 "	Colossal Hand.....	1 25	3111	7 "	Child's Arm, holding an apple	40
3100	11 "	Colossal Hand (spread) ..	90	3112	8 "	Child's Arm, holding a stick	40
3101	10 "	Male Hand (spread).....	75	3311	13 "	Gladiator's Feet, right and left	1 00
3102	14 "	Male Hand (pointing).....	90	3114	14 "	Apollo's Feet, right and left	1 00
3103	12 "	Child's Arm.....	75	3115	11 "	Venus de Medici's Feet, right and left.....	75
3104	12 "	Female Hand (open).....	80	3116	11 "	Male Feet, right and left, from nature.....	85
3105	10 "	Female Hand, resting on cloth (open).....	75	3117	11 "	Female Feet, right and left, from nature, Each ..	85
3106	12 "	Male Hand, holding a chisel.....	80				
3107	10 "	Male Hand, gripping a stone.....	90				
3108	7 "	Female Hand, resting on a block	75				

ANIMAL HEADS.

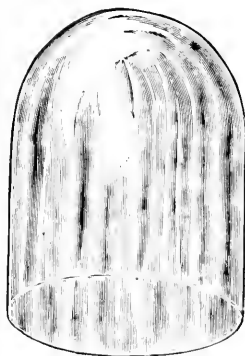
	Size.		Price.		Height.		Price.
3118	15x17 in.	Lion Head.....	\$3 00	3125	4½-in.	Dog Heads, right and left	\$0 50
3119	16½ "	Lion Mask.....	1 50	3126	4 "	Fox Head.....	35
3120	11x17 "	Head of Lioness.....	2 50	3127	5 "	Tiger Head.....	50
3121	13x11½ "	Panther's Head, by Mene	2 50	3128	12 "	Horse Head.....	1 00
3122	10 "	Fox Head.....	1 00	3129	22 "	Horse Head, life size.....	3 00
3123	14x12 "	Lion Mask.....	1 25	3130	3½ "	Bull Head.....	35
3124	8 "	Wolf Head.....	75	3131	14 "	Standing Lion.....	2 00

Crystal Glass Shades.

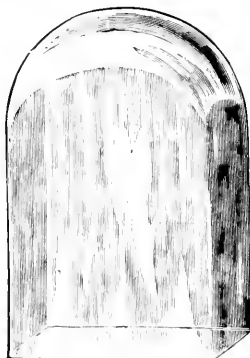
ROUND SHADES.

Strictly First-class. Round, Oval and Square.

Prices Include Stand or Base.



No. 3132.



No. 3132.

Class A. up as high as 36-in.

3132

A.

Diam. Height.	Price.	Diam. Height.	Price.
12 x 22	\$4 35	7 1/2 x 15	\$1 75
11 x 21	3 50	7 x 14	1 55
10 x 20	2 95	6 1/2 x 13	1 40
9 1/2 x 19	2 70	6 x 12	1 20
9 x 18	2 45	5 1/2 x 11	1 05
8 1/2 x 17	2 20	4 1/2 x 9	65
8 x 16	2 00	4 1/2 x 8	55

B.

Diam. Height.	Price.	Diam. Height.	Price.
12 x 20	\$3 90	7 1/2 x 13	\$1 65
11 x 19	3 20	7 x 12	1 45
10 x 18	2 75	6 1/2 x 11	1 30
9 1/2 x 17	2 50	6 x 10	1 10
9 x 16	2 25	5 1/2 x 9	85
8 1/2 x 15	1 95	5 x 8	70
8 x 14	1 80		

C.

Diam. Height.	Price.	Diam. Height.	Price.
12 x 18	\$3 55	8 1/2 x 13	\$1 95
11 1/2 x 17 1/2	3 25	8 x 12	1 70
11 x 17	3 00	7 1/2 x 11	1 50
10 1/2 x 16 1/2	2 75	7 x 11	1 40
10 x 16	2 60	6 1/2 x 10	1 20
9 1/2 x 15	2 30	6 x 9	1 00
9 x 14	2 00	5 1/2 x 8	85

CRYSTAL GLASS SHADES—Continued.

ROUND SHADES—Continued.

D.

Diam. Height.	Price.
12 x 16	\$3 25
11 $\frac{1}{2}$ x 15 $\frac{1}{2}$	3 05
11 x 15	2 80
10 $\frac{1}{2}$ x 14 $\frac{1}{2}$	2 65
10 x 14	2 40
9 $\frac{1}{2}$ x 13	2 10

Diam. Height.	Price.
8 $\frac{1}{2}$ x 12	\$1 80
8 x 11 $\frac{1}{2}$	1 65
7 $\frac{1}{2}$ x 11	1 50
7 x 10	1 35
6 $\frac{1}{2}$ x 9	1 15
6 x 8	90

E.

Diam. Height.	Price.
12 x 14	\$3 05
11 $\frac{1}{2}$ x 13 $\frac{1}{2}$	2 85
11 x 13	2 65
10 $\frac{1}{2}$ x 12 $\frac{1}{2}$	2 45
10 x 12	2 15
9 $\frac{1}{2}$ x 11 $\frac{1}{2}$	1 95

Diam. Height.	Price.
9 x 11	\$1 85
8 $\frac{1}{2}$ x 10 $\frac{1}{2}$	1 70
8 x 10	1 60
7 $\frac{1}{2}$ x 9 $\frac{1}{2}$	1 45
7 x 9	1 30

F.

Diam. Height.	Price.
12 x 12	\$2 85
11 $\frac{1}{2}$ x 11 $\frac{1}{2}$	2 70
11 x 11	2 45
10 $\frac{1}{2}$ x 10 $\frac{1}{2}$	2 20
10 x 10	2 00
9 $\frac{1}{2}$ x 9 $\frac{1}{2}$	1 85

Diam. Height.	Price.
9 x 9	\$1 75
8 $\frac{1}{2}$ x 8 $\frac{1}{2}$	1 60
8 x 8	1 50
7 $\frac{1}{2}$ x 7 $\frac{1}{2}$	1 30
7 x 7	1 20

G.

Diam. Height.	Price.
12 x 10	\$2 70
11 $\frac{1}{2}$ x 9 $\frac{1}{2}$	2 50
11 x 9	2 20
10 $\frac{1}{2}$ x 8 $\frac{1}{2}$	2 05
10 x 8	1 90

Diam. Height.	Price.
9 $\frac{1}{2}$ x 7 $\frac{1}{2}$	\$1 80
9 x 7	1 65
8 $\frac{1}{2}$ x 6 $\frac{1}{2}$	1 60
8 x 6	1 35

OVAL SHADES.

3133

I.

Diam. Width. Height.	Price.
10 x 20 x 23	\$14 75
9 $\frac{1}{2}$ x 19 x 22	13 00
9 x 18 x 21	10 30
8 $\frac{1}{2}$ x 17 x 20	7 65
8 x 16 x 19	6 60
7 $\frac{1}{2}$ x 15 x 18	5 55

Diam. Width. Height.	Price.
7 x 14 x 17	\$4 45
6 $\frac{1}{2}$ x 13 x 16	3 80
6 x 12 x 15	3 35
5 $\frac{1}{2}$ x 11 x 14	2 60
5 x 10 x 13	2 45

J.

Class J. up as high as 24-in.

Diam. Width. Height.	Price.
10 x 20 x 20	\$13 25
9 $\frac{1}{2}$ x 19 x 19	10 90
9 x 18 x 18	7 95
8 $\frac{1}{2}$ x 17 x 17	6 90
8 x 16 x 16	5 60
7 $\frac{1}{2}$ x 15 x 15	4 60

Diam. Width. Height.	Price.
7 x 14 x 14	\$3 95
6 $\frac{1}{2}$ x 13 x 13	3 50
6 x 12 x 12	3 10
5 $\frac{1}{2}$ x 11 x 11	2 60
5 x 10 x 10	2 30

CRYSTAL GLASS SHADES—Continued.

OVAL SHADES—Continued.

K.

Diam. Width. Height.	Price.
9 x 17 x 20	\$7 85
8 $\frac{1}{2}$ x 16 x 19	6 80
8 x 15 x 18	5 50
7 $\frac{1}{2}$ x 14 x 17	4 50
7 x 13 x 16	3 85

Diam. Width. Height.	Price.
6 $\frac{1}{2}$ x 12 x 15	\$3 40
6 x 11 x 14	3 00
5 $\frac{1}{2}$ x 10 x 13	2 50
5 x 9 x 12	2 20

L.

Diam. Width. Height.	Price.
15 x 18 x 18	\$12 70
14 x 17 x 17	9 45
13 x 16 x 16	7 20
12 x 15 x 15	5 95
11 x 14 x 14	4 60
10 x 13 x 13	3 85

Diam. Width. Height.	Price.
9 x 12 x 12	\$3 35
8 x 11 x 11	2 90
7 x 10 x 10	2 40
6 x 9 x 9	2 10
5 x 8 x 8	1 80

N.

Diam. Width. Height.	Price.
8 x 12 x 18	\$3 85
7 $\frac{1}{2}$ x 11 $\frac{1}{2}$ x 17	3 55
7 x 11 x 16	3 25
6 $\frac{1}{2}$ x 10 $\frac{1}{2}$ x 15	3 00
6 x 10 x 14	2 70

Diam. Width. Height.	Price.
5 $\frac{1}{2}$ x 9 $\frac{1}{2}$ x 13	\$2 40
5 x 9 x 12	2 20
4 $\frac{1}{2}$ x 8 $\frac{1}{2}$ x 11	2 05
4 x 8 x 10	1 85

O.

Diam. Width. Height.	Price.
8 x 11 x 17	\$3 45
7 $\frac{1}{2}$ x 10 $\frac{1}{2}$ x 16	3 15
7 x 10 x 15	2 90
6 $\frac{1}{2}$ x 9 $\frac{1}{2}$ x 14	2 60
6 x 9 x 13	2 30

Diam. Width. Height.	Price.
5 $\frac{1}{2}$ x 8 $\frac{1}{2}$ x 12 $\frac{1}{2}$	\$2 15
5 x 8 x 12	2 00
4 $\frac{1}{2}$ x 7 $\frac{1}{2}$ x 11	1 80
4 x 7 x 10	1 75

3134

SQUARE SHADES.

Q.

Diam. Width. Height.	Price.
8 x 12 x 18	\$4 25
7 $\frac{1}{2}$ x 11 $\frac{1}{2}$ x 17	3 75
7 x 11 x 16	3 45
6 $\frac{1}{2}$ x 10 $\frac{1}{2}$ x 15	3 15
6 x 10 x 14	2 90

Diam. Width. Height.	Price.
5 $\frac{1}{2}$ x 9 $\frac{1}{2}$ x 13	\$2 60
5 x 9 x 12 $\frac{1}{2}$	2 35
4 $\frac{1}{2}$ x 8 $\frac{1}{2}$ x 12	2 20
4 x 8 x 11	2 00

R.

Diam. Width. Height.	Price.
10 x 12 x 18	\$4 60
9 $\frac{1}{2}$ x 11 $\frac{1}{2}$ x 17	4 10
9 x 11 x 16	3 65
8 $\frac{1}{2}$ x 10 $\frac{1}{2}$ x 15	3 35
8 x 10 x 14	3 05
7 $\frac{1}{2}$ x 9 $\frac{1}{2}$ x 13	2 80

Diam. Width. Height.	Price.
7 x 9 x 12 $\frac{1}{2}$	\$2 55
6 $\frac{1}{2}$ x 8 $\frac{1}{2}$ x 12	2 30
6 x 8 x 11 $\frac{1}{2}$	2 20
5 $\frac{1}{2}$ x 7 $\frac{1}{2}$ x 11	2 00
5 x 7 x 10	1 80

S.

Diam. Width. Height.	Price.
8 x 11 x 17	\$3 65
7 $\frac{1}{2}$ x 10 $\frac{1}{2}$ x 16	3 35
7 x 10 x 15	3 05
6 $\frac{1}{2}$ x 9 $\frac{1}{2}$ x 14	2 80
6 x 9 x 13	2 45

Diam. Width. Height.	Price.
5 $\frac{1}{2}$ x 8 $\frac{1}{2}$ x 12 $\frac{1}{2}$	\$2 25
5 x 8 x 12	2 10
4 $\frac{1}{2}$ x 7 $\frac{1}{2}$ x 11	1 95
4 x 7 x 10	1 75

CRYSTAL GLASS SHADES—Continued.

SQUARE SHADES—Continued.

Diam. Width. Height.	Price.	T.	Diam. Width. Height.	Price
11 x 14 x 14	\$5 05		7 x 10 x 10	\$2 55
10 x 13 x 13	4 15		6 x 9 x 9	2 20
9 x 12 x 12	3 55		5 x 8 x 8	1 90
8 x 11 x 11	3 10		4 x 7 x 7	1 55

3135

POND LILY SHADES.

With Mirror Stands. Shade and Stand Complete.

Diam.	Price.	Diam.	Price.
13 - inch	\$5 00	9 - inch	\$2 25
12 $\frac{1}{2}$ "	4 60	8 $\frac{1}{2}$ "	2 10
12 "	4 20	8 "	1 90
11 $\frac{1}{2}$ "	3 80	7 $\frac{1}{2}$ "	1 75
11 "	3 50	7 "	1 55
10 $\frac{1}{2}$ "	3 00	6 $\frac{1}{2}$ "	1 30
10 "	2 80	6 "	1 15
9 $\frac{1}{2}$ "	2 40		

Shades supplied running several sizes over the larger dimensions, as here shown.

Wire Easels, Plaque Hangers, Etc.

PICTURE EASELS.

Twisted White Wire.

	Each.	Per doz.
3136 No. 0. 4 inches high.....	\$0 05	\$0 60
No. 1. 5 $\frac{1}{2}$ "	06	70
No. 2. 7 "	08	95
No. 3. 8 $\frac{1}{2}$ "	10	1 20
No. 4. 11 "	15	1 75
No. 5. 12 $\frac{1}{2}$ "	20	2 40

PICTURE EASELS.

Twisted White Wire. Rustic Pattern.

	Each.	Per doz.
3137 No. 0. 5 inches high	\$0 05	\$0 60
No. 1. 6 "	06	70
No. 2. 7 "	08	95
No. 3. 9 "	15	1 20

PLATE EASELS.

Twisted White Wire.

	Each.	Per doz.
3138 No. 0. 6 $\frac{3}{4}$ inches high.....	\$0 13	\$1 60
No. 1. 7 $\frac{1}{4}$ "	14	1 65
No. 2. 8 $\frac{1}{2}$ "	15	1 70
No. 3. 9 $\frac{1}{2}$ "	16	1 75

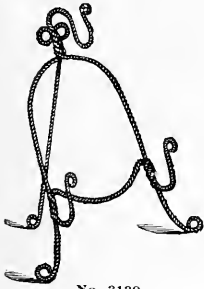
SHEERWOOD'S
No. 3136.

No. 3138.



No. 3137.

WIRE EASELS, PLAQUE HANGERS, ETC.—Continued.



No. 3139.

CUP-AND-SAUCER EASELS.

Like Plate Easel, Only With Additional Hook on Top.

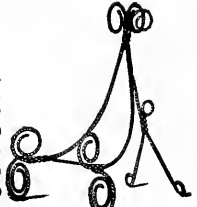
			—SILVERED.—		—GOLD.—	
			Each.	Per doz.	Each.	Per doz.
3139	No. 0.	6 $\frac{1}{4}$ inches high.....	\$0 15	\$1 80	\$0 35	\$3 75
	No. 1.	6 $\frac{1}{2}$ "	16	1 90	35	3 85
	No. 2.	6 $\frac{3}{4}$ "	18	1 95	37	4 00
	No. 3.	7 "	20	2 00	40	4 25

The gold easel does not wear as well as the silvered.

SCROLL PLAQUE EASELS.

			—SILVERED.—		—GOLD.—	
			Each.	Per doz.	Each.	Per doz.
3140	No. 0.	5 inches high.....	\$0 15	\$1 80	\$0 35	\$4 20
	No. 1.	5 $\frac{1}{4}$ "	20	2 40	40	4 80
	No. 2.	6 $\frac{1}{4}$ "	25	3 00	50	6 00
	No. 3.	7 $\frac{1}{2}$ "	30	3 50	60	7 00
	No. 4.	8 $\frac{1}{2}$ "	33	3 95	70	8 00

The gold easel does not wear as well as the silvered.

SILVERWOOD'S
No. 3140.

GILT PLAQUE STANDS.

			—GILT.—	
			Each.	Per doz.
3141	No. 2.	4 $\frac{1}{4}$ inches high.....	\$0 08	\$0 95
	No. 3.	4 $\frac{3}{4}$ "	10	1 20
	No. 4.	5 $\frac{1}{2}$ "	12	1 40
	No. 5.	6 $\frac{1}{4}$ "	15	1 80
	No. 6.	7 $\frac{1}{2}$ "	20	2 30
	No. 7.	8 $\frac{1}{2}$ "	25	3 00

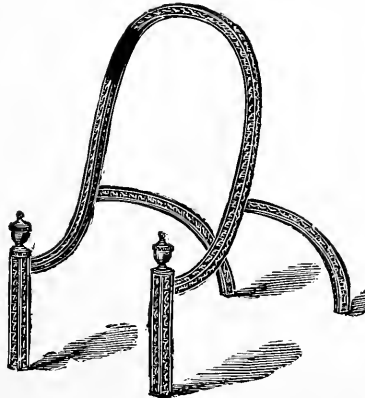
A very fine stand; does not tarnish; good seller.



No. 3141.

ALOE'S SUPERIOR "TUBULAR" BRASS EASELS.

The Strongest and Most Artistic Easel on the Market.



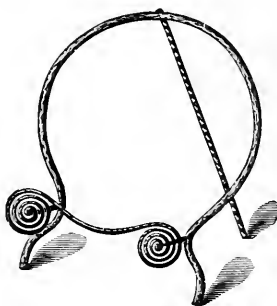
No. 3142.

			—GILT.—		—GOLD.—	
			Each.	Per doz.	Each.	Per doz.
3142	6 $\frac{1}{2}$ -inch		\$0 60	\$7 00	\$0 75	\$8 50
	8-inch.....					

WIRE EASELS, PLAQUE HANGERS, ETC.—Continued.

ALOE'S "EMPRESS" BRASS EASEL.

Beautiful Design. Perfect Finish.



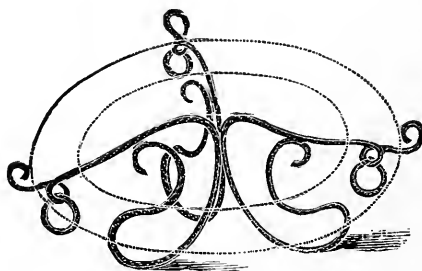
No. 3143.

This easel is the best adapted for holding plaques or plates. The deep part of the plaque setting back into the circle.

			Each.	Per doz.
3143	No. 41.	Size Plaque for 6-inch.....	\$0 30	\$3 60
	No. 42.	Size " 8-inch.....	40	4 80
	No. 42½.	Size " 10-inch.....	40	4 80
	No. 43.	Size " 12-inch.....	60	7 20
	No. 43½.	Size " 14-inch.....	60	7 20
	No. 44.	Size " 16-inch.....	1 00	12 00
	No. 44½.	Size " 18-inch.....	1 00	12 00

ALOE'S "PRINCESS" PLAQUE STAND.

Burnished Brass. Perfect Finish.



No. 3144.

Adjusted to the plaque or plate without effort. Very effective and artistic. With this simple device any plaque or plate can be converted into a card receiver, stand, etc.

			Each.	Per doz.
3144	For Plaque measuring from 6 inches to 8 inches.....		\$0 30	\$3 50
	For " " " 7½ " 9½ "		35	4 00

WIRE EASELS, PLAQUE HANGERS, ETC.—Continued.

ALOE'S "SECURITY" PLAQUE HANGER.

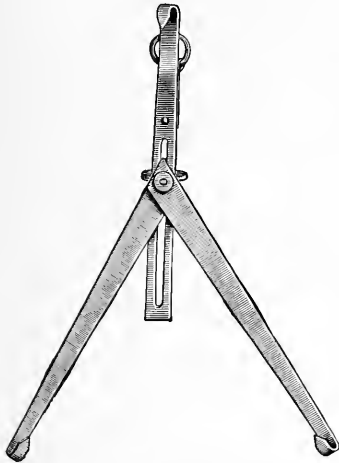
Strong, Durable and Secure. Brass.

Arranged with thumb-screw to set the arms. It is impossible for a plaque to slip from this hanger.

		Each.	Per doz.
3145	No. 1. For 5 to 10-in. plaque	\$0 25	\$3 00
	No. 2. " 7 to 10	30	3 60
	No. 2½. " 9 to 12	40	4 80
	No. 3. " 11 to 14	45	5 40
	No. 4. " 13 to 16	50	6 00
	No. 5. " 15 to 18	55	6 60
	No. 6. " 17 to 20	65	7 80
	No. 19. " 19 to 22	75	9 00

BRASS "CHAIN" PLAQUE HANGER.

Cut Shows Back of Plaque When in Use.



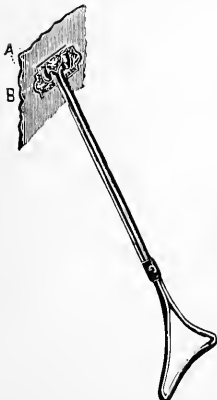
No. 3145.

		Each.	Per doz.
3143	No. 2. Brass, for 6 and 8-inch plaques	\$0 20	\$2 40
	No. 3. Brass, " 10 " 12 " " " "	25	3 00
	No. 4. Brass, " 14 " 16 " " " "	30	3 60

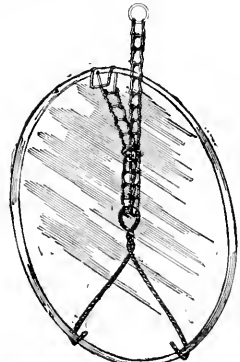
"PERFECT" EASEL REST.

For Attaching to Backs of Picture Frames, Panels, Etc.

(Patent Pending.)



No. 3147.



No. 3146.

The prongs "A" are put through back of mat or backing and clinched. The stop "B" making the angle positive, being made of hard brass, it is impossible for brace to spread or flatten down.

Not quite as cheap as the common wire rests, but in utility, strength and ease of application so vastly superior that they are cheaper in the end.

Made of hard embossed brass (lacquered).

	Each.	Per doz.		Each.	Per doz.	
3147	Length, 3-inch.	\$0 10	\$0 75	Length, 9-inch	\$0 16	\$1 40
	Length, 4 " "	11	80	Length, 10 " "	17	1 50
	Length, 5 " "	12	85	Length, 11 " "	18	1 60
	Length, 6 " "	13	95	Length, 12 " "	19	1 75
	Length, 7 " "	14	1 05	Length, 14 " "	20	2 00
	Length, 8 " "	15	1 30			

BRASS CHAIN.

Used for Hanging Decorated Articles, Etc.

3148	Price.....	Per box of 12 yards, \$0 60
-------------	------------	-----------------------------

Miscellaneous.

EMBOSSSED FANCY SILVER ORNAMENTS.

For decorating celluloid and paper frames, Christmas, Easter, Valentine, birthday, euchre and menu cards, blotting pads, calendars, book covers and corners, book-markers, jewel, glove and handkerchief boxes, purses, and many other fancy articles. White metal, fac-simile of Sterling silver designs.

BANGLE ORNAMENTS.

With Holes to Attach to Ribbons or Sew on Articles.

3149	No. 1.	Three in set—Anchor, Cross and Heart—1-inch long.....	Per set, \$0 15	Doz. sets, \$1 20
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PIN ORNAMENTS.

With Pin or Staple Fasteners Attached.

3150	No. 2.	Three in set—Anchor, Cross and Heart— $\frac{1}{2}$ -inch long.....	Per set, \$0 10	Doz. sets, \$0 8
	No. 3.	Crown and Plumes, 1-inch long.....	Each, 65	Per doz., 20
	No. 4.	Crown " $\frac{3}{4}$ " ".....	05	" 20
	No. 5.	Crown " $\frac{1}{2}$ " ".....	05	" 20
	No. 6.	Ear of Corn, 1 " ".....	05	" 20
	No. 7.	Swallow Flying, $1\frac{1}{4}$ " ".....	05	" 25
	No. 8.	Swallow " 1 " ".....	05	" 25
	No. 9.	Swallow " $\frac{3}{4}$ " ".....	05	" 25
	No. 10.	Swallow " $\frac{1}{2}$ " ".....	05	" 25
	No. 11.	Dragon Head, $\frac{3}{4}$ " ".....	05	" 25
	No. 12.	Flower de luce, $1\frac{1}{4}$ " ".....	05	" 20
	No. 13.	Flower " $\frac{3}{4}$ " ".....	05	" 20
	No. 14.	Flower " $\frac{1}{2}$ " ".....	05	" 20
	No. 15.	Coronet, 1 " ".....	05	" 25
	No. 16.	Crown, 1 " ".....	05	" 25
	No. 17.	Crown, $\frac{3}{4}$ " ".....	05	" 25
	No. 18.	Crown, $\frac{1}{2}$ " ".....	05	" 25
	No. 19.	Card Ornaments, four in set—Heart, Spade, Club and Diamond— $\frac{1}{2}$ -inch long.....	Per set, 15	Doz. sets, 1 00
	No. 20.	Heart and Arrow, $1\frac{1}{2}$ -inch long.....	Each, 05	Per doz., 20
	No. 21.	Iris, 1 " ".....	05	" 25
	No. 22.	Double Heart, $\frac{7}{8}$ " ".....	05	" 25
	No. 23.	Ribbon Bow Knot, $1\frac{1}{4}$ " ".....	05	" 25
	No. 24.	Feather, $1\frac{1}{4} \times 5\frac{1}{2}$ " ".....	15	" 1 00
	No. 25.	Columbus Button, 1-inch round.....	05	" 30
	No. 26.	Coat of Arms, 1 " ".....	05	" 20

CORNER ORNAMENTS.

Fastened on by Bending Ends Over.

3151	No. 27.	Bow Knot, 2-inch long.....	Each, \$0 05	Per doz., \$0 30
	No. 28.	Bow Knot, $2\frac{1}{2}$ " ".....	05	" 30

CORNER ORNAMENTS.

With Sleeve on Back to Slide On.

3152	No. 29.	Scroll, $1\frac{1}{2}$ -inch long.....	Each, \$0 10	Per doz., \$0 40
	No. 30.	Daisy, $2\frac{1}{2}$ " ".....	10	" 65
	No. 31.	Oxidized, $1\frac{1}{2}$ " ".....	10	" 40
	No. 32.	Oxidized, $1\frac{1}{4}$ " ".....	10	" 40

MISCELLANEOUS—Continued.

BRASS BANNER ROD.

For Hanging Banners, Etc. Rustic Pattern, with Rings and Chain.



No. 3153.

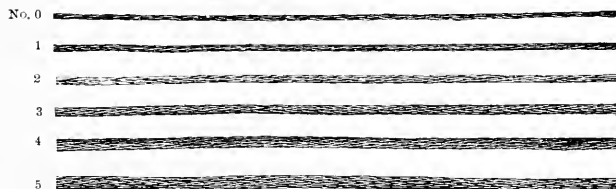
		Each.	Per doz.			Each.	Per doz.
3153	6-inch.	\$0 10	\$1 20		15-inch	\$0 22	\$2 60
	8 "	12	1 40		18 "	25	3 00
	10 "	15	1 80		20 "	35	3 25
	12 "	18	2 15		24 "	40	4 50

WIRE FOR HANGING PICTURES.

Braided Coils, 25 Yards in Box.



No. 3153.



3154	No. 0.	Per box of 25 yards....	\$0 06	No. 3.	Per box of 25 yards	\$0 20
	No. 1.	" " 25 "	10	No. 4.	" " 25 "	25
	No. 2.	" " 25 "	15	No. 5.	" " 25 "	35

PICTURE HOOKS.

		Per doz.
3155	No. 227. Solid Brass.....	\$0 25
3156	No. 6000. Embossed Brass.....	20

MISCELLANEOUS—Continued.

PICTURE NAILS.



No. 3157.

3157	No. 9	Per doz.	
3158	Wire Top.....		\$0 25
			20

BRASS HEADED TACKS.

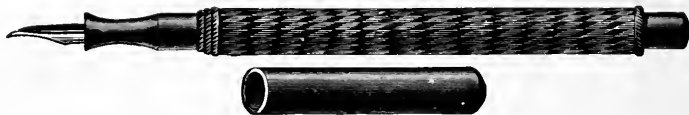


3159	Price	Per doz.	
			\$0 05

FOUNTAIN PEN.

PAUL E. WIRT FOUNTAIN PEN.

Get the Best.



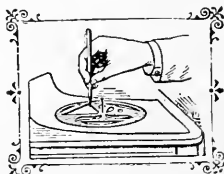
No. 3160.

Absolutely durable, practicable and reliable. Positively the leading pen. A million in use.
 "An absolutely perfect pen, compared with which all others are rank failures."—*Mark Twain.*

3160	Complete, fitted with gold pen, in neat box.....	Each, \$2 50
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THE POLYGRAPH.

For Drawing, Designing and Instructive Amusement.



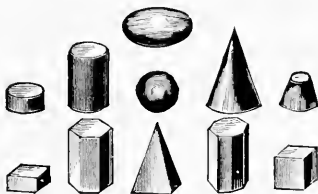
No. 3161.

3161	Brass, in box, with full directions	Each, \$0 25
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MISCELLANEOUS—Continued.

DRAWING BLOCKS.

For Geometrical and Object Drawing. Specially Adapted for School and Class Work.

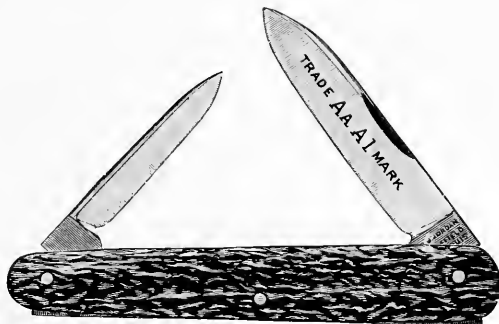


In Wood. Put up in Handsome Box.

	Each.
3162 Set A. Six Blocks; sphere, 4 inches in diameter; sphere, cylinder, square prism, cube, hemisphere, right-angled triangular prism, complete.....	\$4 00
3163 Set B. Same as above; sphere, 2 inches in diameter.....	3 00
3164 Set C. Same " " 1 inch " ".....	2 00
3165 Set D. Six Blocks; cone, 4x8 inches; equilateral triangular prism, square pyramid, cone, ellipsoid, ovoid, vase, complete.....	4 50
3166 Set E. Same as above; cone, 2x4 inches.....	4 00
3167 Set F. Same " " 1x2 ".....	3 50
3168 Set G. Seven Blocks; sphere, 4 inches in diameter; sphere, halved and quartered; cube, quartered diagonally; pentagonal prism, hexagonal prism, octagonal prism, vase (a), vase (b), complete set.....	6 50

A BUSY MAN'S KNIFE.

It is designed and made especially for him. Just the thing for nails, pencils, etc. It is of the very highest quality. Made in the popular sleeve-board pattern; genuine stag handle; brass-lined; very best English crucible cast steel; hardened and tempered by skilled and experienced workmen. A solid, common-sense knife, and a beauty for the vest pocket. Try one. Each knife is guaranteed to be just as represented.



No. 3169. (Cut shows full size.)

	Each
3169 Genuine stag handle, finest English hand-forged steel, nicely finished. The famous A.A. A1 brand.....	\$5 75
3170 Same as above, in select ivory handle.....	1 10
3171 Same as above, in beautiful pearl handle, elegantly finished.....	1 60
3172 Same as above, in stag handle, 3 blades, with nail file.....	1 40
3173 Same in ivory, 3 blades, with nail file.....	1 80
3174 Same in pearl, " " " ".....	2 65

MISCELLANEOUS—Continued.

PALETTE PAINTING BOOKS.

For Children.

- 3185** With colored illustrations and outline drawings on opposite pages for coloring in water colors, crayons, etc.; full instructions in 4 numbers; very artistic, good sellers. Size, $7\frac{1}{4} \times 10$, Nos. 1, 2, 3 and 4.....Each, \$0 20 Per dozen, \$2 40

LESSONS IN PENCIL DRAWING FROM NATURE.

BY W. N. BARTHOLOMEW.

Under this title are published three parts, of twelve plates each, of studies of bits of out-door work, beginning with very simple objects, and gradually going to more difficult compositions, as a preliminary practice to drawing from nature itself. We quote from the introductory remarks to Part I:

"The great obstacle in the way of the beginner, in attempting to draw from nature, is that he finds few things there which admit of a liberal representation. To remove this obstacle, the proper thing to do is to make a careful study of the means which others have used in representing this class of objects, and by practice to become familiar with the means they have employed. Then, when he goes to nature, he will, in some measure, be prepared to give expression to what he sees.

"There is a class of theorists who insist that the beginner should never work from drawings, that he should go to nature for his models. There might be some little show of good sense in this criticism, provided that the beginner were gifted with an intuitive knowledge of the proper means to be employed in representing objects that do not themselves suggest any means by which they may be represented with the pencil, but unfortunately this is not the case. The argument is that the pupil who works from the drawings of another will adopt his style of expression, his method of doing things, and will never be able to rid himself of it—he can never become original. If this is true in art it should be true in literature. Is it true that the student who studies the writings of Addison, Scott, Irving and others, eminent for their style, can never do any original work along these lines himself? How is it with penmanship, which is nothing more nor less than drawing, at least in its first steps? While under his instructor, the student is an imitator, but this does not impair his originality, if he has any originality. Wait till he leaves his instructor and begins to work without a printed example before him, and you will see that he will gradually acquire a style of his own, so that any one familiar with his handwriting would recognize it at a glance by certain peculiarities. This result always follows; there are no exceptions to it. A like result is just as sure to follow where the pupil works from drawings; no one ever met with an exception—and no one ever will."

Full instruction and many useful general hints are given with the plates.

	Per part.
3186 Part 1—Twelve plates.....	\$0 75
Part 2— " "	75
Part 3— " "	75

MISCELLANEOUS—Continued.

PRANC'S OUTLINE PICTURES.

With Directions for Coloring.

The handling of brush and color is one of the greatest pastimes with children, and as this furnishes instructive amusement, it should be made available in the best form.

Instruction which the child enjoys is entered into eagerly, going far to make accomplishment easy and rapid. Therefore, instruction in the form of amusement is one of the best methods with children, since by it the child is drawn of its own volition.

Our aim is to assist parents and teachers to extract education from this pastime, for, with proper guidance, this simple amusement may be made fruitful in benefit for life.

If wisely directed, two ends may be attained: First—A knowledge of the right use and combination of colors. Second—The cultivation of artistic taste.

Our Outline Pictures for painting, by leading artists, will place in the hands of parents really artistic designs, with simple arrangements of color, by means of which, from the first step, the child will lay the foundation of a true artistic perception.

It is intended to include in these issues a variety of figures, animals, landscapes, flower-pieces and decorative work.

Even children of a larger growth will derive not a little pleasure and profit from the study of these outlines.

Put up uniformly, in attractive portfolios, size 7x9½ inches, each containing nine pictures, including one colored as an example, with directions for coloring.

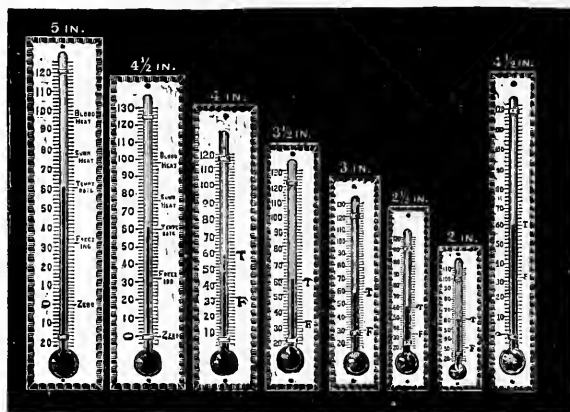
The following series are now ready:

- No. 1. Children (single figures).
- No. 2. Children (groups).
- No. 3. Flowers.
- No. 4. Children.
- No. 5. Farm Scenes.

- No. 6. Children at Work.
- No. 7. Children at Play.
- No. 8. Kind Children.
- No. 9. Figures from Mother Goose.

3186a Price, per portfolio\$0 25

THERMOMETERS FOR MOUNTING ON PLUSH, ETC.



No. 3187.

	Each.	Per doz.
3187 Inches, 2 and 2½.....	\$0 10	\$1 20
Inches, 3 and 3½.....	10	1 20
Inches, 4, 4½ and 5.....	15	1 80

MISCELLANEOUS—Continued.

FRAMES, PICTURES, MATS, ETC.

We are in a position to furnish gold, bronze, composition and natural wood frames; over three hundred rich and beautiful designs, and quote you prices lower than any house in the West.

ALL-GOLD FRAMES.

We desire to call your attention to the superior quality of our gold frames, being the best made in the market. We use only the best XX Gold Leaf, and will warrant every frame to be as represented. None but skilled workmen are employed, thus insuring a high standard of work.

COMPOSITION GOLD FRAMES.

These frames are made of the same mouldings as all-gold frames, and look nearly as well. If properly cared for, will wear as well as all-gold frames, and are much cheaper.

ROMAN BRONZE FRAMES.

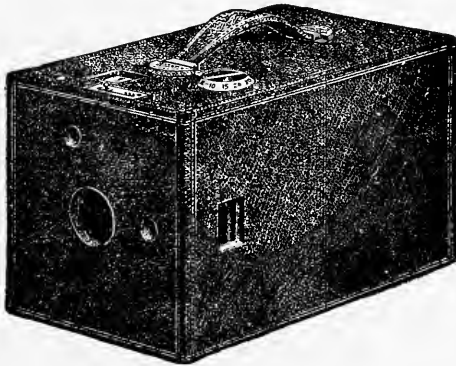
This style of frame is becoming very popular for crayon pictures, steel engravings, water colors, flower pieces and certain oil paintings. The finish is a very fine imitation of old bronze. Combined with velvet and gold, is very effective. Most of the mouldings that we finish in gold we also finish in Roman bronze.

We do not publish a catalogue of frames, but a trial order will convince you of our ability to furnish any style of frame ordered for less money than our competitors.

THE HAWK-EYE CAMERA.

Size of Pictures, 4x5 inches. Instantaneous and View Camera Combined.

Best All-Around Camera Made.



3188	The Hawk-Eye Camera, fitted with regular lens, hand-finished case, lacquered trim-		
	mings, with one double plate-holder, 4x5		\$15 00
3189	Extra plate-holders for glass dry plates	Each,	1 00
3190	Extra " " film "	"	1 00
3291	Glass dry plates, 4x5	Per doz.,	65
		50 Exposures.	100 Exposures.
3292	The Hawk-Eye Camera, as above, with automatic roll-holder, loaded		
	with Blair's film	\$25 00	\$28 00
3293	Additional roll of Blair's film	3 00	6 00

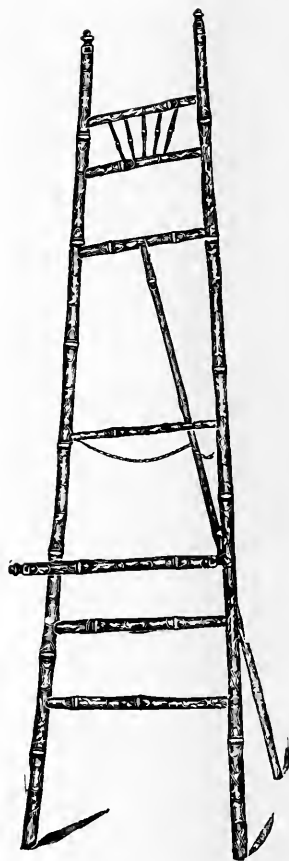
We carry a full stock of everything in the photographic line, and are agents for all the leading brands of cameras.

Aloe's Illustrated Photographic Catalogue sent on application.

Bamboo Easels.



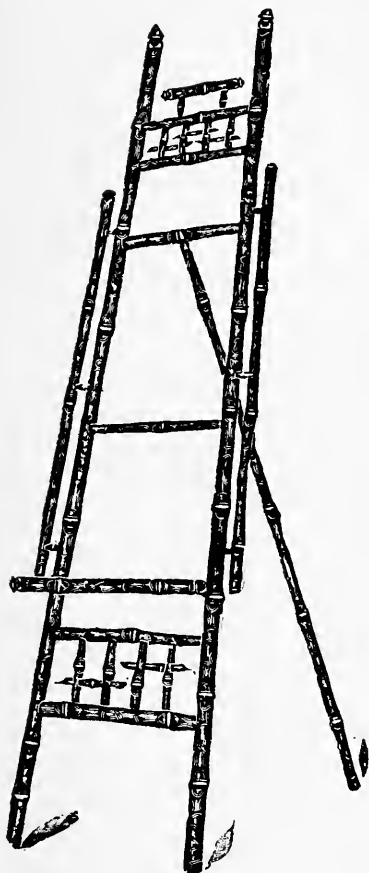
No. 3194.



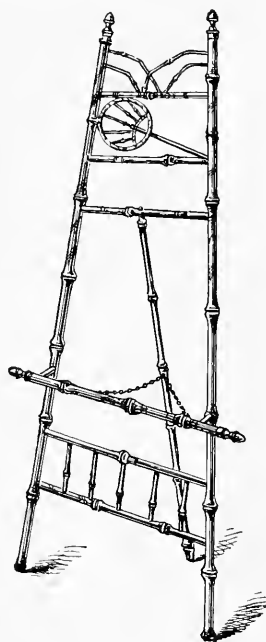
No. 3196.

		Each.
3194	Bamboo Easel, height, 5 feet, full brass trimmed, with dark joints.....	£0 75
3195	Same as No. 3194, but without brass trimmings.....	60
3196	Bamboo Easel, height, 5 feet, full brass trimmed, mottled.....	1 10

BAMBOO EASELS—Continued.



No. 3197.



No. 3198.

3197 Bamboo Easel, height, 5 feet; a very handsome easel; full brass trimmed; mottled.

Price Each, \$2 50

3198 Bamboo Easel, 5½ feet high; brass trimmed. Price..... Each, \$2 85

Screens.

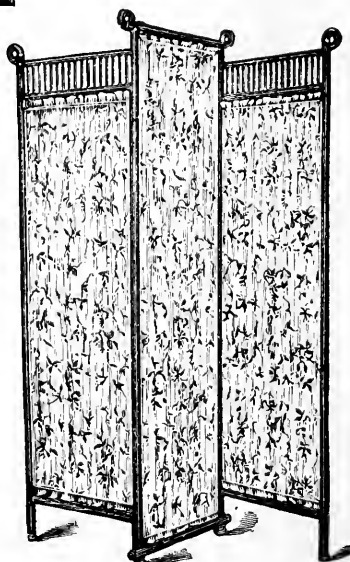


No. 3199.

- Each.
- 3199** Made in Antique Oak, extra wide; size, width, 30 inches; height, 37 inches. Panel, width, 28 inches; height, 26 inches. Filled imitation silk panels, as shown in cut \$2 35
- Without silk panel..... 1 90
- 3200** With canvas panel instead of silk..... 2 85

THREE-FOLD SCREEN.

- Each.
- 3201** Made in Antique Oak, brass mounted, double acting. Height, 5 feet, 3 inches; width, 4 feet, 10 inches. Panel filled with imitation silk \$5 85
- Without silk trimmings..... 4 75
- 3202** With canvas panels for painting on, in place of silk drapery..... 6 90

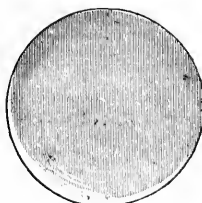


No. 3201. (Patented.)

Articles for Decorating.

ROUND PAPIER-MACHE PLAQUES.

		—Plain.—		—Japanned.—		Gilt or Silvered.	
		Each.	Per doz.	Each.	Per doz.	Each.	Per doz.
3203	6-inch.....	\$0 15	\$ 1 80	\$0 30	\$ 3 15	\$0 50	\$ 4 80
	7 ".....	20	2 10	35	3 75	55	5 75
	8½".....	25	2 50	40	4 50	60	6 25
	10 ".....	30	3 20	50	5 25	70	7 50
	12 ".....	35	4 20	65	7 00	90	10 80
	14 ".....	50	5 60	80	8 80	1 15	13 75
	16 ".....	60	7 00	1 00	11 25	1 40	16 80
	18 ".....	85	9 80	1 25	13 50	1 70	20 00
	20 ".....	1 25	15 00	1 50	18 60	.....	.....
	22 ".....	1 50	18 00	1 75	21 00	.....	.....
	24 ".....	1 75	21 00	2 00	24 00	.....	.....



No. 3203.

Dull Ebonized Plaques at same prices as Japanned.

Suitable for decoration in oil colors. The best sizes for the dealer to carry are 8½-inch, 10-inch, 12-inch and 14-inch *plain*. Japanned, gilt and silvered are poor sellers and unsatisfactory stock.

OVAL PAPIER-MACHE PLAQUES.

For Oil Decoration.



No. 3204.

		—Plain.—		—Japanned.—		Gilt or Silvered.	
		Each.	Per doz.	Each.	Per doz.	Each.	Per doz.
3204	10-inch.....	\$0 30	\$ 3 35	\$0 45	\$ 5 25	\$0 70	\$ 8 00
	11 ".....	35	3 80	55	6 00	75	8 85
	13 ".....	40	4 80	70	8 25	1 00	12 00
	15 ".....	55	6 60	90	10 80	1 35	16 20

OBLONG PAPIER-MACHE PLAQUES.

For Oil Decoration.

		—Plain.—		—Japanned.—		Gilt or Silvered.	
		Each.	Per doz.	Each.	Per doz.	Each.	Per doz.
3205	5 x 8 inches.....	\$0 25	\$ 3 00	\$0 40	\$ 4 35	\$0 55	\$ 6 50
	6 x 9 ".....	30	3 50	45	5 00	65	7 25
	7 x 10½".....	40	4 50	55	6 25	80	9 50
	8 x 12 ".....	55	5 50	65	7 50	1 00	12 00
	9 x 13½".....	65	7 50	80	9 60	1 25	14 75
	10 x 15 ".....	80	9 50	1 00	11 75	1 50	18 00



No. 3205.

BRASS PLAQUES.

For Oil Decoration.

Entirely new design, having a dull center and highly burnished and embossed rims. This plaque is far superior to the ordinary plain brass plaque.



No. 3206.

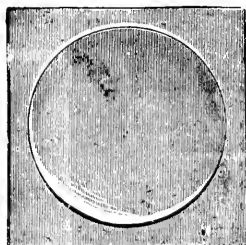
		—Plain.—		—Japanned.—		Gilt or Silvered.	
		Each.	Per doz.	Each.	Per doz.	Each.	Per doz.
3206	Size, 6-inch.....	\$0 15	\$ 1 80	Size, 12-inch.....	\$0 45	\$ 5 40	
	Size, 7 ".....	20	2 40	Size, 14 ".....	60	7 20	
	Size, 8 ".....	25	3 00	Size, 16 ".....	90	10 80	
	Size, 10 ".....	35	4 20				

ARTICLES FOR DECORATING—Continued.

MEDALLION PAPIER-MACHE PLAQUES.

For Decoration in Oil Color.

Outside Square. Flat Edge. Round, Concave Center.



No. 3207.

		Each.	Per doz.
3207	Plain, size of concave center, $8\frac{1}{2}$ inches; size of outside square, $10\frac{1}{2}$ inches	\$0 65	\$ 7 80
	Plain, size of concave center, 10 inches; size of outside square, 12 inches....	80	9 60
	Plain, " " " 12 " " " " 14 "	1 00	12 00
	Plain, " " " 14 " " " " 17 "	1 25	15 00

CRYSTAL PLAQUES.

For Oil Decoration.

This is the most artistic plaque ever put on the market, and by far the best seller we have ever handled. If kept in stock any length of time it is as perfect as the day it was bought.



No. 3208.

	Each.	Per doz.		Each.	Per doz.
3208 Size, 6-inch	\$0 40	\$4 00	Size, 10-inch	\$0 75	\$ 7 50
Size, 8 "	60	6 00	Size, 12 "	1 00	10 00

DECORATED CRYSTAL PLAQUES.

It is well for the dealer to carry at least one decorated sample of the above line to show his customers how beautiful they appear when artistically painted.

	Each.		Each.
3209 Size, 6-inch	1 25	Size, 10-inch	\$2 75
Size, 8 "	1 75	Size, 12 "	3 50

ARTICLES FOR DECORATING—Continued.

ALABASTER PLAQUES—Round.

Also Called "Opal Glass" Plaques, "Translucent Glass" Plaques, "Porcelain" Plaques and "Frosted Glass" Plaques.

For Decoration in Oil Colors. Also Suitable for Decoration in Pastel and Water Colors.

	Each.	Per doz.		Each.	Per doz.
3210 5-inch	\$0 15	\$1 80	12-inch	\$0 70	\$ 8 40
6 "	20	2 40	13 "	85	10 20
7 "	25	3 00	14 "	1 00	12 00
8 "	30	3 60	15 "	1 15	13 80
9 "	40	4 80	16 "	1 25	15 00
10 "	50	6 00	18 "	1 50	18 00
11 "	60	7 20			

These plaques are good salable stock for the dealer to carry.

DECORATED ALABASTER PLAQUES.



No. 3211.

Aside from the fact that these plaques are very artistic and salable, a dealer will find that our decorated sample will greatly increase the sale of his undecorated plaques. Elegantly hand-painted in oil colors. For each decorated plaque we send a fancy brass easel, and price includes same.

	Each.		Each.
3211 Size, 6-inch	\$1 00	Size, 10-inch	\$2 50
Size, 8 "	1 75	Size, 12 "	3 50

Extra Fine Imported.

	Each.		Each.
3211a Size, 8-inch	\$2 35	Size, 12-inch	\$4 75
Size, 10 "	3 50		

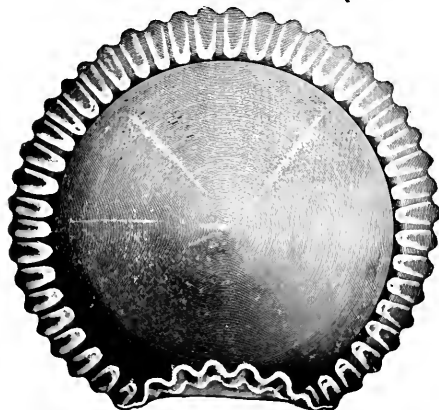
SCALLOPED-EDGE ALABASTER PLAQUES.

Does not sell as well as the "round" or "shell" plaques.

	Each.		Each.
3212 Size, 6-inch	\$0 30	Size, 12-inch	\$1 10
Size, 8 "	40	Size, 14 "	1 50
Size, 10 "	75	Size, 16 "	2 50

ARTICLES FOR DECORATING—Continued.

ALABASTER SHELL PLAQUES.



No. 3213.

A very artistic plaque and a good seller. For decoration in oil colors. As the shape of the plaque renders it impossible to cover the decoration with glass, it is not suitable for decoration in water colors or pastel.

	Each.	Per doz.
3213 Size, 6-inch.....	\$0 40	\$4 50
Size, 8 "	60	7 00

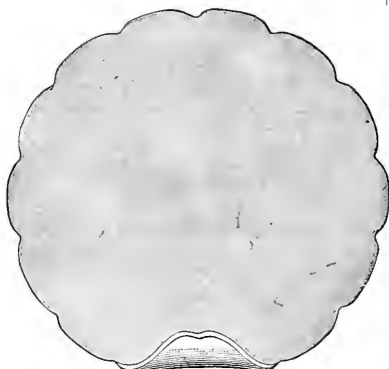
	Each.	Per doz.
Size, 10-inch	\$0 90	\$10 00
Size, 12 "	1 20	13 50

FLAT SHELL ALABASTER PLAQUES.

One Turn.

	Each.
3214 6-inch.....	\$0 30
8 "	50
10 "	60
12 "	85
14 "	1 15

Does not sell as well as Shell No. 3213



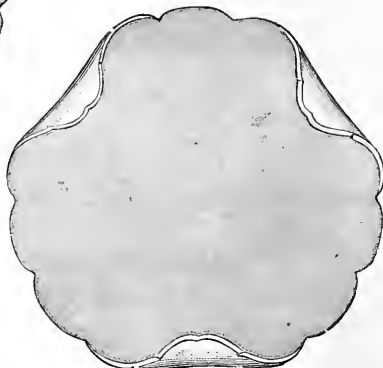
No. 3214. One Turn.

FLAT SHELL ALABASTER PLAQUES.

Three Turn.

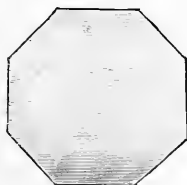
	Each.
3215 6-inch	\$0 50
8 "	60
10 "	75
12 "	1 00
14 "	1 25

Does not sell as well as Shell No. 3213.



No. 3215. Three Turn.

ARTICLES FOR DECORATING—Continued.



No. 3216.

OCTACON ALABASTER PLAQUES.

		Each.
3216	6-inch	\$0 25
	8 "	45
	10 "	60
	12 "	1 00

There is little call for this plaque.

CRYSTAL FLOWER GLOBES.

For Decoration in Oil Colors.

Also suitable for China Color Painting.



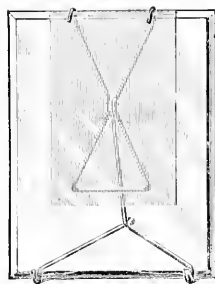
No. 3218.

				Each.
3218	Flower Globe, transparent crystal, 3 inches high, decorated.....			\$0 60
3219	Flower " " " 3 " plain			35
3220	Flower " " " 4 " decorated			1 25
3221	Flower " " " 4 " plain.....			40
3222	Flower " " " 6 " decorated			1 50
3223	Flower " " " 6 " plain			55
3224	Flower " " " 7 " "			1 00
3225	Flower " " " 9 " "			1 25
3226	Flower " " " 10 " "			1 50
3227	Flower " " " 12 " "			1 80

PHOTOGRAPH HOLDERS.

Glass Panel Design.

For Decoration in Oil Colors.



No. 3228.

These holders have large bevel glass panels for decorating. Advantages of a firm and solid construction. No weak joints. Have no screw heads on face of glass. Gives largest surface for decoration. No hole in glass. Simple yet effective. Will hold any size photograph to limit of size of glass. Holds photograph flat by top, sides and bottom. Of embossed wire and neat in appearance.

3228	Glass, large bevel, 8x9 inches	Each, \$1 00
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ARTICLES FOR DECORATING—Continued.

DOUBLE TRANSPARENT CRYSTAL PHOTO FRAMES.

For Decoration in Oil Colors.



No. 3229a

With heavy bevel. Connected by beautiful silver mountings. Very artistic.

3229 Undecorated	Each, \$2 00
3229a Decorated	" 3 50

VENETIAN GLASS VASES.

For Decoration in Oil Colors.

Beautiful, Delicate and Artistic.



No. 3230.

		Each.	Per doz.
3230	5 inches high	\$0 25	\$2 75
	6½ "	35	3 75
	8 "	45	5 00
	9½ "	60	6 75
3231	5 inches high	25	2 75
	6½ "	35	3 75
	8 "	45	5 00
	9½ "	60	6 75



No. 3231.

CLASS PERFUME BOTTLES.

With Glass Stopper.

For Decoration in Oil Colors.

3232 3½ inches high	Each, \$0 10	Per dozen, \$1 00
----------------------------------	--------------	-------------------

CRYSTAL FISH CLOBES.

With Glass Feet.

For Decoration in Oil Colors.

Very Artistic Treated in Ferns, Mosses, Flowers, Etc.

	Each.		Each.
3233 1-gallon	\$1 85	3-gallon	\$4 65
1½ "	2 20	4 "	5 75
2 "	2 75	5 "	6 25
2½ "	3 35		

THREE-PLY WOODEN PLAQUES.

For Decoration in Oil Colors.

We discourage the dealer from buying this plaque. Papier-Mache, round or plain, is a much better plaque to handle in every way.

	Each.		Each.
3234 Size, 7-inch	\$0 12	Size, 9½-inch	\$0 20
Size, 8½ "	15	Size, 12 "	40

ARTICLES FOR DECORATING—Continued.

GENUINE ALUMINUM PLAQUES AND PANELS.

Plain, dull finish for oil and water color painting. Articles made of Aluminum will not tarnish; it is the lightest metal known, and very pretty for decorative purposes and home ornamentation.

		Size.	Each.	Per doz.
3235	Panels, plain.....	$3\frac{1}{2} \times 4\frac{3}{4}$	\$0 20	\$2 00
	Panels, ".....	$3\frac{3}{8} \times 6\frac{1}{4}$	30	3 00
	Panels, ".....	4 x 8	40	3 80
	Panels, ".....	5 x 10	50	5 10
3236	Panels, " embossed border.....	4 x 8	50	5 10
3237	Panels, " " " with easel back.....	$4\frac{1}{2} \times 8\frac{1}{2}$	1 00	10 25
3238	Panels, " with border of embossed daisies on both ends and easel back.....	5 x 9	65	6 90
3239	Panels, plain, with border of embossed icicles on both ends, and easel back.....	5 x 9	65	6 90
3240	Panels, plain, double, with embossed daisies on brickwork border, and easel back.....	5 x 9	1 00	10 25
3241	Panels, plain, double, with embossed icicles on brickwork border, and easel back.....	5 x 9	1 00	10 25
3242	Plaques, round, crimped edge, 6-inch diameter.....		40	4 00
	Plaques, " " " 8 " ".....		60	6 10
	Plaques, " " " 10 " ".....		1 00	10 25

NOTICE.—New goods made of Aluminum for the use of decoration will be constantly added.

BLACK POLISHED PANELS.

For Decoration in Oil Colors—(see page 22).

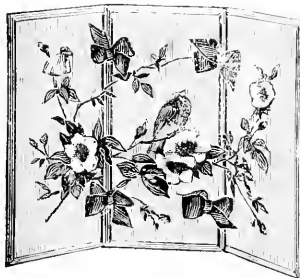
RUSSELL'S CANVAS BOARDS.

For Decoration in Oil Colors—(see page 22).

POLISHED PLATE GLASS SCREENS.

Either Ground or Highly Polished Surface.

Beveled Edge, with Holes.



No. 3243.

This illustration shows how screen should be decorated.

Three panels, when tied with silk cord or ribbon, form a screen.

3243	5x10 inches, undecorated.....	Per set, \$1 75
	6x12 " ".....	" 2 25
	7x14 " ".....	" 2 75

ARTICLES FOR DECORATING—Continued.

TRANSPARENT CRYSTAL SCREENS.

For Decoration in Oil Colors.

Two Panel, with Heavy Bevel—Connected by Silvered Mountings—Exquisite!

3244	Size, 5x10	Each, \$1 50
	Size, 6x12	" 2 00

For cut showing general style, see illustration No. 3229a, page 310.

TRANSPARENT CRYSTAL PHOTO FRAMES.

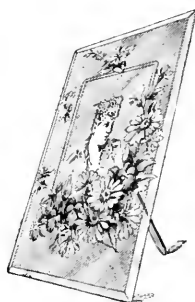
Patented in all Countries.

For decoration in oil colors; specially adapted for fine amateur paintings and decorative work. Securely packed in cartridge cases.

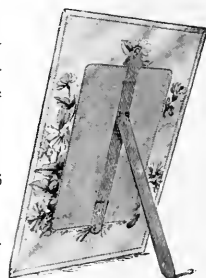
3245 For Cabinet Photos, undecorated..... Each, \$0 75
(See illustrations.)

One of the best selling articles in the line.

3245a The above frame beautifully decorated in oil colors. Each, \$1 50



No. 3245a. Decorated.
Showing Front.



No. 3245a. Decorated.
Showing Back.

CRYSTAL BELLS.

	Each.	Per doz.
3246 Tea Bell, transparent crystal, hand-painted flowers, ribbon ornament, 4½-inch high, 3-inch diameter.....	\$0 75	\$9 00
3247 Same, plain, for decoration.....	50	6 00

Very artistic and a capital seller.

A practical bell for general use.



No. 3246.

CRYSTAL ROSE JARS.

For Decoration in Oil Colors.

	Each.
3248 6 inches high, plain.....	\$0 40
3249 6 " " decorated.....	1 25
3250 8 " " plain	60
3251 8 " " decorated.....	1 50

Beautiful and very salable.



No. 3249. Decorated.

ARTICLES FOR DECORATING—Continued.

PHOTOGRAPH HOLDER.

With Beveled Plate Glass.

Cabinet Size.

This is the best holder in the market. The wires on back hold the photograph flat against the glass so no dust can get between.

	Each.	Per doz.
3252 Size, 4 $\frac{1}{4}$ x6 $\frac{1}{2}$	\$0 20	\$2 40

A big seller.

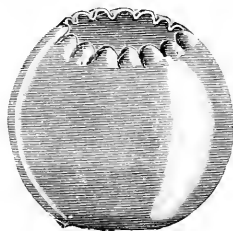


No. 3252.

Very artistic and beautiful when decorated.

		Each.	Per doz.
3253	Diameter of bowl, 4 inches.....	\$0 35	\$3 60
	Diameter " 5 "	45	4 80
	Diameter " 6 "	50	5 75
	Diameter " 7 "	60	7 00

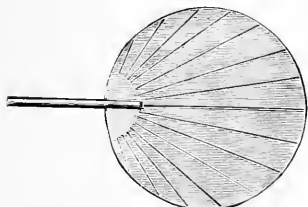
For Decoration in Oil Colors.



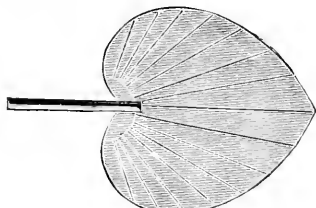
No. 3253.

ALUMINUM FANS.

With French Gilt Handles. A Beautiful Finish.



No. 3254.



No. 3255.

Strong and large enough for practical use; very artistic; good sellers; will never tarnish; can be washed with soap and water.

		Each.	Per doz.
3254	Fan 7 $\frac{1}{2}$ inches, across, Entire length 11 inches.	\$0 80	\$9 50
3255	Fan 7 $\frac{1}{2}$ " " " " 11 "	80	9 50

ALUMINUM FRAME AND MIRROR.

For Decoration in Oil Colors.

Very Artistic and Effective.

3256	Size of Mirror, 6x6; size of Frame, 10x10 inches.....	Each, \$2 00
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ALUMINUM PHOTO FRAMES.

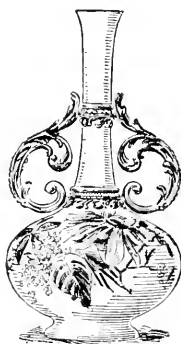
Cabinet Size.

3257	With Glass and Stand.....	Each, \$0 75
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ARTICLES FOR DECORATING—Continued.

ALABASTER VASES.

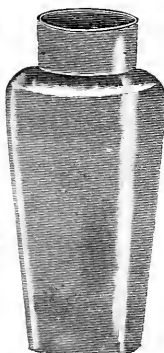
For Decoration in Oil Colors.



No. 3259.



No. 3261.



No. 3268.



No. 3271.



No. 3263.



No. 3265.



No. 3267.



No. 3269.



No. 3272.

The most artistic line of vases for decoration ever offered the trade; silvered fancy handles and beautiful finish.

				Each.
3258	Vase 11½-in. high, silvered handles, plain			\$4 00
3259	Vase 11½-in. " " " decorated			6 00
3260	Vase 11½-in. " " " plain			3 75
3261	Vase 11½-in. " " " decorated			5 50
3262	Vase 12-in. " " " plain			4 25
3263	Vase 12-in. " " " decorated			6 50
3264	Vase 11½-in. " " " plain			4 00
3265	Vase 11½-in. " " " decorated			6 00
3266	Vase 9½-in. " " " plain			4 00
3267	Vase 9½-in. " " " decorated			6 00
3268	Vase 14-in. " undecorated only			2 00
3269	Vase 11½-in. " " "			1 50
3269	Vase 7-in. " " "			75
3270	Vase 14-in. " silvered handles, plain			4 75
3271	Vase 14-in. " " " decorated			7 00
3272	Vase 7-in. " undecorated only			75

NOTE.—In ordering vases, if possible, name second choice.

ARTICLES FOR DECORATING—Continued.

MILK-CLASS PANELS.

Thick.

	Each.		Each.
3373 Size, 4x 4 inches.....	\$0 12	Size, 7x10 inches.....	\$0 40
Size, 4x 6 ".....	15	Size, 7x14 ".....	50
Size, 4x 8 ".....	20	Size, 8x 8 ".....	35
Size, 5x 7 ".....	20	Size, 8x12 ".....	50
Size, 5x10 ".....	30	Size, 8x16 ".....	75
Size, 6x 6 ".....	20	Size, 10x14 ".....	75
Size, 6x 8 ".....	25	Size, 10x20 ".....	1 00
Size, 6x10 ".....	35	Size, 12x20 ".....	1 25
Size, 6x12 ".....	40		

Any other size of the above made to order at proportionate prices.

BEVELED-EDGE MILK-CLASS PANELS.

Ground Face, with Polished $\frac{1}{4}$ -inch Beveled Edge.

	Each.		Each.
3374 Size, 3x 6 inches.....	\$0 25	Size, 6x 6 inches ..	\$0 40
Size, 4x 4 ".....	20	Size, 6x10 ".....	70
Size, 4x 6 ".....	30	Size, 6x12 ".....	85
Size, 4x 8 ".....	35	Size, 7x14 ".....	1 10
Size, 5x 7 ".....	40	Size, 8x 8 ".....	70
Size, 5x10 ".....	55		

TAMBOURINES.

	Each.		Each.
3375 Sheep, 6-inch, plain rim.....	\$0 25	Calf, 6-inch, plain rim.....	\$0 30
Sheep, 8 ".....	35	Calf, 8 ".....	45
Sheep, 9 ".....	40	Calf, 9 ".....	50
Sheep, 10 ".....	45	Calf, 10 ".....	60
Sheep, 12 ".....	60	Calf, 12 ".....	85

SQAURE BEVELED MIRRORS.

In Broad Wooden Frames. For Decorating.

Made of best French plate glass. Silvered. Beveled edge. Width of frame in proportion to size of glass, from 3 to 6 inches.

Size.	3276 Mirrors only.		3277 Frames only.	3278 Frame and glass set square or diamond.	3279 Ebony Frames only.	3280 Ebonyized. The glass set square or diamond.
4x 4.....	\$	3 $\frac{1}{4}$ -inch.....	\$0 75	Each, \$1 15	\$1 10	Each, \$1 50
6x 6.....	45	3 $\frac{1}{4}$ ".....	85	" 1 35	1 25	" 1 75
8x 8.....	75	1 ".....	95	" 1 75	1 45	" 2 35
10x10.....	1 10	1 ".....	1 00	" 2 25	1 60	" 2 85
12x12.....	1 70	1 ".....	1 10	" 3 00	1 80	" 3 75
14x14.....	2 10	1 ".....	1 20	" 4 00	2 00	" 4 75
16x16.....	2 90	1 ".....	1 35	" 4 75	2 25	" 5 50
18x18.....	3 80	1 ".....	1 45	" 5 50	2 50	" 6 25

The most popular frame is No. 3277.

ARTICLES FOR DECORATING—Continued.

ROUND BEVELED MIRRORS.

In Broad Wooden Frames. For Decorating.

Size.	Bevel.	3281 Frames, Each.	3282 Ebonyed Frames, Each.
6 inches diameter.	$\frac{3}{4}$ -inch	\$1 35	\$1 75
8 " "	$\frac{3}{4}$ " "	1 75	2 35
10 " "	1 " "	2 25	2 85
12 " "	1 " "	3 00	3 75
14 " "	1 " "	4 00	4 75

Mirrors in bird's-eye maplewood frames, set square, diamond or round, furnished to order. The plain wooden frames gilded to order. Special sizes made to order. Stained and polished frames, in imitation of French walnut, mahogany and rosewood, at same prices as ebonyed.

Stands to attach to Mirrors, for placing them on table, at from 25 to 50 cents extra.

The plain wood frames are the most salable.

GROUND PLATE CLASS PANELS.

Clear Beveled Edge.

Fine Surface for Oil Paints, and a Beautiful Ornament.



No. 3283.

Size.	Each.	Size.	Each.
3283 4x 8 inches	\$0 40	10x14 inches	\$1 50
6x 6 " "	40	12x12 " "	1 50
6x 8 " "	60	12x16 " "	2 00
8x 8 " "	65	12x18 " "	3 00
7x 9 " "	75	16x20 " "	4 00
10x10 " "	1 00	18x22 " "	4 75
10x12 " "	1 25	20x24 " "	6 25

OAK OR MAPLEWOOD PANELS.

See page 23.

MAHOGANY, WALNUT, OAK, CHESTNUT AND BIRD'S-EYE
MAPLEWOOD PANELS.

See page 23.

JAPANNED TIN PANELS.

See page 23.

SPLASHER MATS.

For Decoration in Oil Colors.

	Each.
3284 Plain, size, 18x36	\$0 15
3285 Rope, $\frac{1}{4}$ -inch thick, for trimming, per 7 yards	15

Made of thin strips of wood laced together to form a banner.

LARGE WOOD SHOVELS.

For Decoration in Oil Colors.

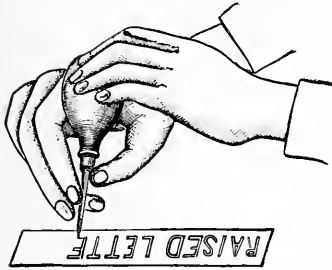
	Each.
3286 Plain, full size	\$1 25
Black Back and Handle, full size	1 45

ARTICLES FOR DECORATING—Continued.

THE AIR PENCIL.

For Making Raised Letters and Relief Work.

To be applied to plaques, vases, fancy boxes, dance cards, menus and ornaments of all kinds. By the use of the Air Pencil the most beautiful effects in raised lettering can be produced.



- 3287** Outfit complete, in neat box, comprising Air Pencil, Dry Medium and Liquid Each, \$0 75
3288 Med. No. 1 (liquid), bottles..... " 25
3289 Med. No. 2 (dry powder), boxes " 25

CELLULOID IN SHEETS.

Sheet celluloid comes in five thicknesses, $\frac{5}{1000}$, $\frac{10}{1000}$, $\frac{15}{1000}$, $\frac{20}{1000}$, $\frac{25}{1000}$, $\frac{40}{1000}$, or No. 10, as it is commonly known, is the only weight the dealer should carry; the $\frac{5}{1000}$, or No. 5, is too thin to be serviceable for decorative purposes, and the extra heavy weights are too stiff to be used to advantage.

- Per sheet.
3290 No. 10 Medium, all colors, Opaque, glazed on one side, with satin back, 20x50 inches \$1 30
3291 No. 10 Medium, all colors, Opaque, glazed on both sides, 20x50 inches 1 50
3292 No. 10 Medium, all colors, Transparent, clear back or dull back, 20x50 inches..... 1 70

Parts of sheets are sold any number of inches by 20 inches (the width of the sheet); that is to say, you can order a piece 10x20, 15x20, 20x20 or 25x20, etc. Cut sheets we price as follows:

- Per inch.
 Opaque colors, glazed on one side, 20 inches wide..... \$0 03
 Opaque " " both sides, " " 04
 Transparent colors, 20 inches wide 04

To illustrate, a piece of celluloid 7 inches by 20 inches, opaque, glazed on one side, costs 21 cents; glazed on both sides, or transparent, costs 28 cents; or if 30x20, it would cost respectively 90 cents and \$1.20.

Celluloid is made in the following colors, all of which we carry in stock.

OPAQUE COLORS.

- | | |
|-----------------------|---|
| No. | No. |
| 43. Ivory White | 470. Green, Pale |
| 10. Pure White | 472. Green, Pea |
| 361. Pink, Light | 657. Blue, Light |
| 359. Pink, Medium | 658. Blue, Medium |
| 363. Pink, Deep | 661. Blue, Deep |
| 375. Grey | 121. Red |
| 403. Lavender, Light | 274. Dark Brown Mottled (Tortoise Shell Effect) |
| 405. Lavender, Medium | 522. Light Brown Mottled (Marble Effect) |
| 404. Purple | 527. Red Mottled |
| 430. Cream | 156. Black |
| 432. Yellow, Light | 44. Ivory (showing vein of natural Ivory) |
| 431. Yellow, Deep | |

TRANSPARENT COLORS.

- | | |
|---------------------------|-------------------|
| No. | No. |
| 300. Colorless, Clear | 473. Green, Light |
| 300AB. Colorless, Frosted | 471. Green, Dark |
| 121. Red | 145. Amber |
| 605. Purple | 730. Gold Bronze |
| 659. Blue | 731. Silver " |
| 660. Blue Green | |

ARTICLES FOR DECORATING—Continued.

SILK-FINISHED CELLULOID.

Watered Silk, Finish in Colors Nos. 658, 359, 156.

The surface is a perfect reproduction of the texture of silk.

3293	Size, 20x50 inches. Opaque.	Per sheet, \$2 50
	Price, per 1 inch by 20 inches	08

Watered or Spotted Silk Finish in Colors Nos. 659, 471, 124.

3294	Size, 20x50 inches. Transparent	Per sheet, \$3 00
	Price, per 1 inch by 20 inches	10
3295	Sample book of all the above colors	50

We will refund the full price of this sample book if returned in good condition within ten days.

COLD BEVELED-EDGE PAPER-PANEL CARDS—Heavy.

With Clean-cut Edges. Pure, Non-tarnishable Gold Leaf. For Mounting Maroon, Dark Olive, Green or White. Gouache Water Color Painting, Drawing, etc.

	Size.	Each.	Per doz.		Size.	Each.	Per doz.
3296	4 x5-inch	\$0 05	\$0 50		6½x 8½-inch	\$0 10	\$1 00
	4¼x6½ "	01	70		8 x10 "	14	1 25
	5 x7 "	08	90		10 x21 "	18	1 80
	5 x8 "	09	1 00				

EMBOSSSED PANEL CARDS.

Beveled Gold Edge, Beautiful Embossed Border, Plain Center. For Water Color, Pen and Ink Drawing or Mounting.

	Size.	Each.	Per doz.		Size.	Each.	Per doz.
3297	1½x2¼-inch	\$0 02	\$0 20		3x4 - inch	\$0 06	\$0 60
	2¾x2¾ "	03	30		4x5½ "	08	80
	2¾x3¾ "	04	40				

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Imitation Embossed Frame. Very Effective and Artistic.

		Each.	Per doz.
3298	Beautiful design, carved edge, circular opening, with card suitable for water colors, pen and ink or pencil; size of frame, 4¼x4¼, round opening, 3¼.	\$0 15	\$1 50

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Carefully Prepared from Selected Ivory.

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	No. 2. 1⅞x2¾ "	45		No. 6. 3½x4½ "	2 80
	No. 3. 2¼x2¾ "	70		No. 7. 4 x5 "	4 00
	No. 4. 2½x3¼ "	1 00		No. 8. 4½x6 "	6 50

BOLTING CLOTH.

Finest Quality.

		Per yard.
3300	20 inches wide	\$1 35
3301	40 " "	2 50

CHAMOIS SKINS.

See page 158.

ARTICLES FOR DECORATING—Continued.

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Rough Surface for Water Color Painting. Suitable for Easter, Valentine, Birthday, Menu Cards, Etc.

	Each.	Per doz.		Each.	Per doz.
3302 $3\frac{1}{2} \times 4\frac{1}{2}$ -inch.....	\$0 01	\$0 10	7x 9-inch	\$0 06	\$0 65
4 x4 "	02	15	9x11 "	10	1 00
4 x6 "	02	20	5x 8 "	06	65
$4\frac{1}{2} \times 6$ "	03	25	8x10 "	10	1 00
6 x6 "	04	35			

READY MATTED WATER COLOR BOARD.

For Decoration in Water Colors. Mats White.

	Each.	Per doz.
3303 Size of mat, 10x12-inch; opening, $5\frac{3}{4} \times 7\frac{5}{8}$	\$0 35	\$3 50
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The paper is the finest Whatman's, and the mat is arranged to hinge back. Suitable for framed pictures, holiday, birthday, Easter cards, etc.

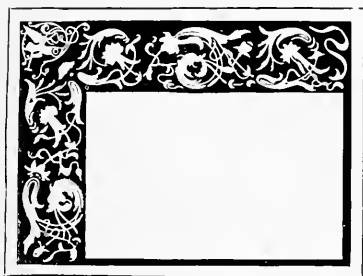
WHATMAN'S WATER COLOR BOARDS

	Each.	Per doz.		Each.	Per doz.
3305 5x10-inch.....	\$0 10	\$1 00	10x14-inch	\$0 25	\$2 75
6x12 "	15	1 50	8x16 "	30	3 25
7x14 "	20	2 00	9x18 "	35	3 50
8x12 "	20	2 40	10x20 "	35	3 75

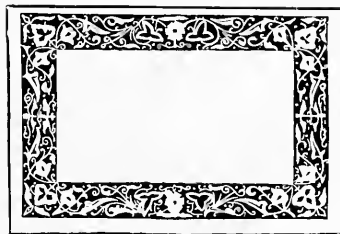
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Just Imported.



No. 3306.



No. 3307.

	Each.	Per doz.
3306 $2\frac{1}{2} \times 4$ -inch	\$0 05	\$0 50
3306 $3\frac{3}{8} \times 5$ "	10	1 00
3307 $3 \times 4\frac{1}{2}$ "	07	75

Suitable for decoration in oil, water color or pastel.

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For Decoration in Oil or Water Colors.

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12 " ".....	1 75

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With Easel Backs.

For Decoration in Water Colors.

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3310 Card size, assorted shapes.....	\$0 30	\$3 00
3311 Cabinet size, ".....	40	4 00

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Clover-Leaf Shape. Open-Work Edge.

Size, $4\frac{1}{2} \times 4\frac{1}{2}$ inches.

A truly beautiful Card. Suitable for Decoration in Oil Colors, etc.

	Each.	Per doz.
3311a Price.....	\$0 10	\$1 00

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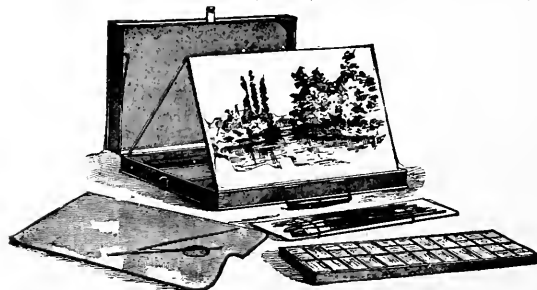
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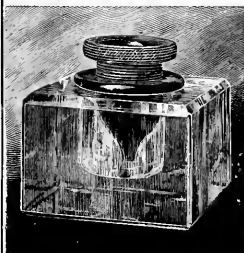
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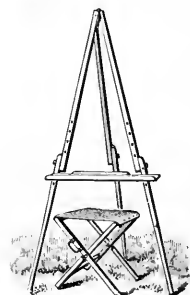
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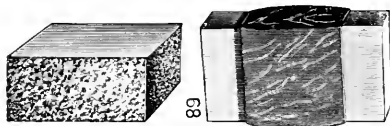
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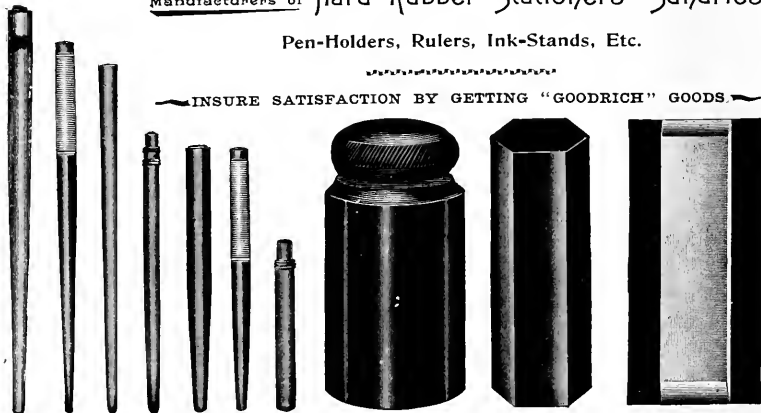
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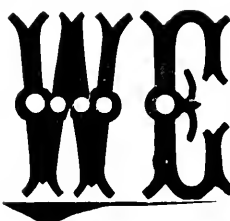
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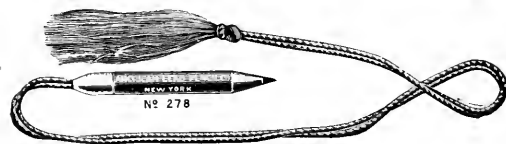
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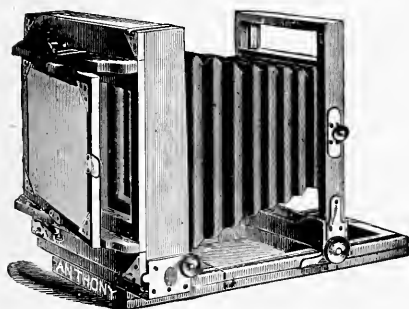


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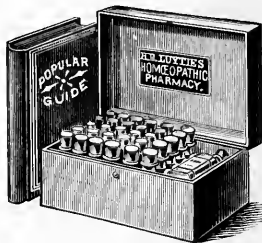
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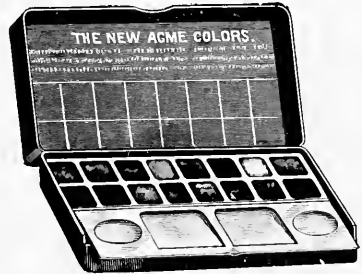
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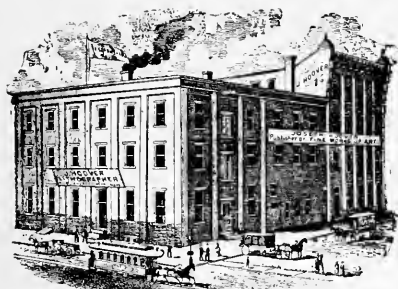
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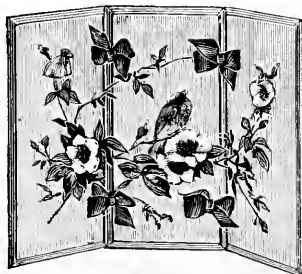
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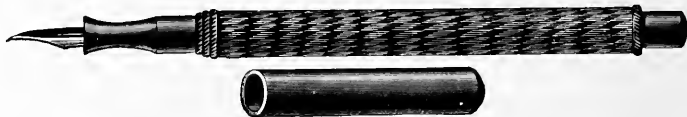
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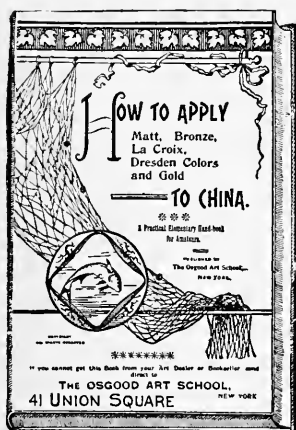
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
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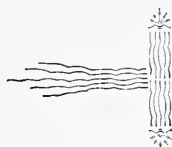
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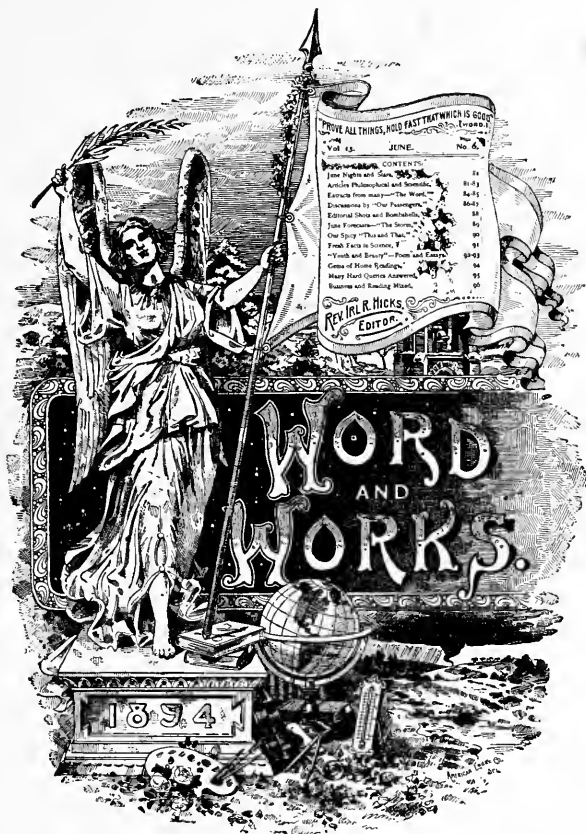
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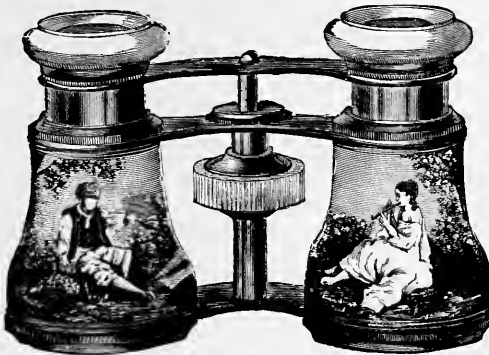


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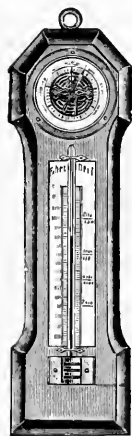
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